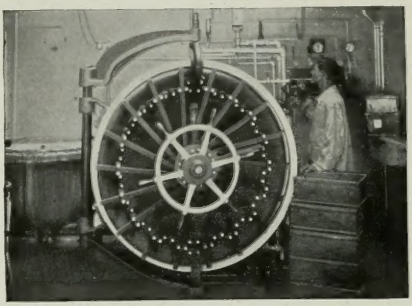
CENTRAL HOSPITAL OF PEKING

The MODERN HOSPITAL

Vol. VIII *April, 1917* No. 4

Mulford Ampuls

The Mulford sterile ampul offers a convenient and safe method of administering subcutaneously accurate doses of many potent drugs.



Large autoclave for sterilization, with live steam under pressure, of syringes and other containers, and ampuls containing hypodermic solutions.

The H. K. Mulford Company is particularly well equipped with the laboratory facilities necessary for preparing, sterilizing and testing the solutions for sterility.

The Mulford ampuls are of flint insoluble glass with flat bottom and shoulder, insuring easy transfer of solution to the syringe. They are furnished in boxes containing 12 ampuls, except ampuls of Cornutol, Emetine and Quinine and Urea Hydrochloride, which are furnished in boxes of 6 ampuls.

Selected List of Mulford Sterile Ampuls

No.	Name
2	Atropine Sulphate, 0.0006 Gm. (1-100 gr.)
4	Caffeine and Soda Benzoate, 0.25 Gm. (3 3-4 gr.)
5	Caffeine and Soda Benzoate, 0.5 Gm. (7 1-2 gr.)
9	Camphor, 0.1 Gm. (1 1-2 gr.). Oil of Sweet Almond, 1 mil
10	Camphor, 0.2 Gm. (3 gr.). Oil of Sweet Almond, 1 mil
12	Cornutol, 2 mils (c.c.)—vacule ampuls
14	Emetine Hydrochloride, 0.005 Gm. (1-12 gr.)
15	Emetine Hydrochloride, 0.02 Gm. (1-3 gr.)
16	Emetine Hydrochloride, 0.032 Gm. (1-2 gr.)
17	Emetine Hydrochloride, 0.04 Gm. (2-3 gr.)
24	Iodine Solution, 3.5 per cent in 1-mil ampuls. "First Aid Ampuls."
35	Mercuric Chloride Corrosive, 0.01 Gm. (1-6 gr.)
36	Mercuric Chloride Corrosive, 0.0012 Gm. (1-50 gr.)
42	Mercury Succinimide, 0.01 Gm. (1-6 gr.)
43	Morphine Hydrochloride, 0.016 Gm. (1-4 gr.)
44	Morphine Sulphate, 0.01 Gm. (1-6 gr.)
45	Morphine Sulphate, 0.008 Gm. (1-8 gr.)
46	Morphine Sulphate, 0.016 Gm. (1-4 gr.)
47	Morphine and Atropine No. 1. Morphine Sulphate, 0.016 Gm. (1-4 gr.) Atropine Sulphate, 0.0004 Gm. (1-150 gr.)
51	Pituitary Extract, physiologically tested, 1-2 mil (c.c.)
52	Pituitary Extract, physiologically tested, 1 mil (c.c.)
54	Quinine Dihydrochloride, 0.25 Gm. (3 3-4 gr.)
55	Quinine Dihydrochloride, 0.5 Gm. (7 1-2 gr.)
58	Quinine and Urea Hydrochloride, 1 per cent
61	Sodium Cacodylate, 0.1 Gm. (1 1-2 gr.)
62	Sodium Cacodylate, 0.2 Gm. (3 gr.)
64	Sodium Cacodylate, 0.5 Gm. (7 3-4 gr.)

Complete List of Mulford Sterile Ampuls on Request

MULFORD FOR THE CONSERVATION OF LIFE LABORATORIES

H. K. Mulford Company

Manufacturing and Biological Chemists

PHILADELPHIA, U. S. A.

MULFORD FOR THE CONSERVATION OF LIFE LABORATORIES

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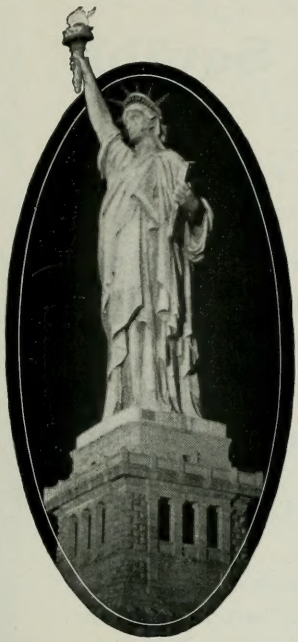

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Courtesy United Electric Co.

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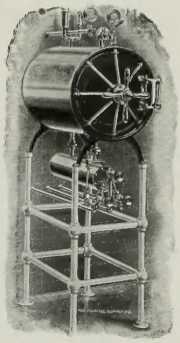
"The sterilizers with all of the advantages and none of the disadvantages of other sterilizers."

DISCRIMINATING purchasers of sterilizing apparatus are rapidly beginning to note that in almost all cases of competition, when a careful investigation of the merits of the claims of manufacturers is made, "Climax" Sterilizers are invariably adopted.

IN every instance where we have competed for contracts with Governmental Departments, and full opportunity for comparison was afforded, OUR APPARATUS HAS BEEN PURCHASED.

WE firmly believe that prospective purchasers of sterilizers are coming to realize that "Climax" Sterilizers, judged from the standpoints of convenience, efficiency, and durability, afford the most perfect apparatus obtainable today.



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DRESSINGS
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WATER
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DISINFECTORS
FOR CLOTHING
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Our organization is prepared to take care of the wants of Governmental Authorities, Red Cross and similar organizations in furnishing complete, and on short notice, everything required for Hospital and Surgical relief. Our Factory has already acquired additional facilities, and we have accumulated exceptionally large stocks of Supplies, including Beds and Bedding, ready for prompt shipment. Our experience in governmental requirements has probably been more extensive than that of any other firm.

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If not—send for them

LOOK IT UP IN
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The two so far issued are the most complete and most profusely illustrated Catalogues of Hospital and Surgical Equipment ever issued.

A third one describing Surgical Sundries and Instruments will soon be issued.

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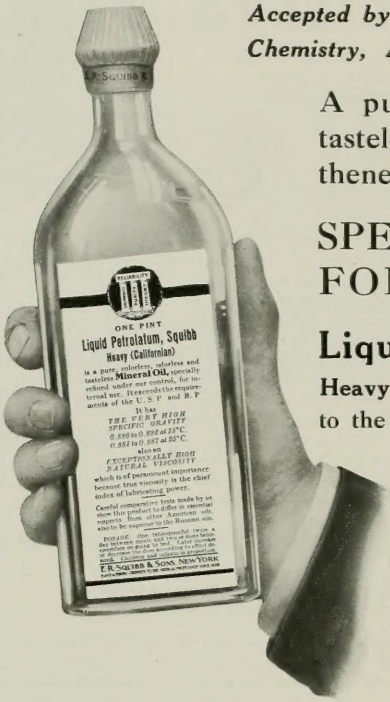
(Heavy, Californian)



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A pure, colorless, odorless, and tasteless mineral oil of the naphthene series of hydrocarbons.

SPECIALLY REFINED FOR INTERNAL USE

Liquid Petrolatum, Squibb, **Heavy (Californian)**, is recommended to the medical profession for preventing absorption of bacteria from the intestine and for restoring normal bowel functioning.

It is the most viscous mineral oil on the market, which viscosity is true—i. e., natural—and is effective at the temperature of the inside of the intestine.

It may be administered in any quantities necessary. Its use does not form a habit.

As it is not absorbed, it is indicated to regulate the bowels during pregnancy and lactation.

Sold only in one-pint original bottles under the Squibb label and guarantee

Dr. Ferguson's concise handbook on Intestinal Stasis and Constipation will be sent free to any physician on request.

MEDICAL DEPARTMENT

E. R. SQUIBB & SONS, New York

Manufacturing Chemists to the Medical Profession since 1858

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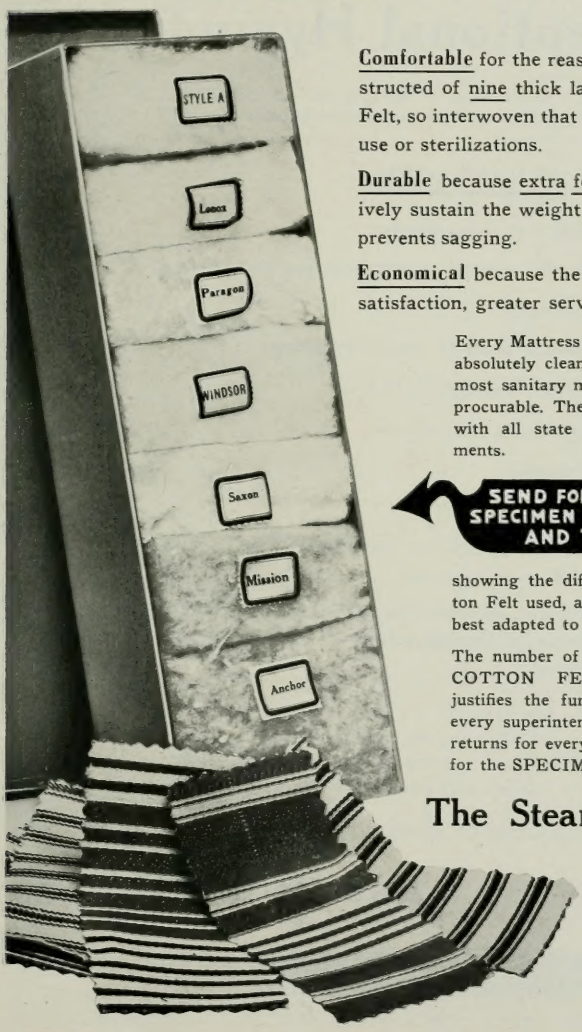
A comfortable, durable and more economical mattress for hospital purposes



Comfortable for the reason that every Mattress is scientifically constructed of nine thick layers of new, clean, soft, and fluffy Cotton Felt, so interwoven that they will not lump or pack under continued use or sterilizations.

Durable because extra felt is placed where required to most effectively sustain the weight of the body. A Crowncenter construction prevents sagging.

Economical because the greater life of the Mattress means greater satisfaction, greater service, and greater economy per dollar spent.

Every Mattress is made from new and absolutely clean materials and in the most sanitary method of manufacture procurable. These mattresses comply with all state law bedding requirements.

SEND FOR THIS BOX OF SPECIMEN COTTON FELTS AND TICKINGS

showing the different grades of Cotton Felt used, and also those tickings best adapted to hospital use.

The number of hospitals using these COTTON FELT MATTRESSES justifies the further investigation of every superintendent desiring greater returns for every dollar spent. Write for the SPECIMEN BOX today.

Some of the Many Hospitals Using S. & F. Mattresses

U. S. Army Hospital Train for Mexican Border.
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Allegheny General Hospital, Pittsburgh, Pa.
St. Mary's Hospital, Rochester, Mass.
St. Joseph's Hospital, Ashland, Wis.
Waterbury Hospital, Waterbury, Conn.

The Stearns & Foster Company
Cincinnati, Ohio

Largest Manufacturers of Cotton Felt Mattresses in the World

INDEX OF ADVERTISERS

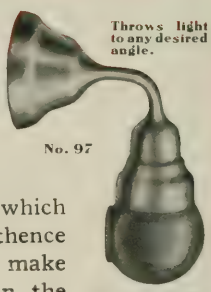
See Pages 85, 87, 89, and 91 for Directory of Hospital Supplies

Continued on page 8.

INDEX OF ADVERTISERS

Continued from page 7.

Sanitary—Dustless—Efficient



Ward and Private Room Bed Light

Here is but one of the many fixtures in the DEE-CEE line—the absolutely complete line—of lighting fixtures for Modern Hospitals.

This Bracket has an opaque cover, with a small aperture which allows light to escape against the wall and be reflected thence on the patient. This enables the physician or nurse to make an examination of any patient without other patients in the ward getting a glare of light in their eyes, waking them up or otherwise annoying them.

Over 20 Years

Experience and Study

in anticipating every lighting requirement of the modern hospital—in the operating room—the ward room—the corridors—the office—now places at your disposal—the absolutely FIRST COMPLETE—sanitary—seamless—dustless—scientific lighting fixtures for hospitals.

DEE-CEE

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Hospital Lighting Fixtures

MEET THE CRITICAL HOSPITAL REQUIREMENTS

Superintendents—Physicians and Surgeons—Nurses and Patients—all find in the DEE-CEE line special fixtures which are built for their service and comfort. With these qualities—which can now be secured for the first time—no one who has at heart the future success of a Hospital can afford to neglect a complete investigation of this most recent achievement in sanitary lighting equipment.

SEND FOR THIS INTERESTING BOOK

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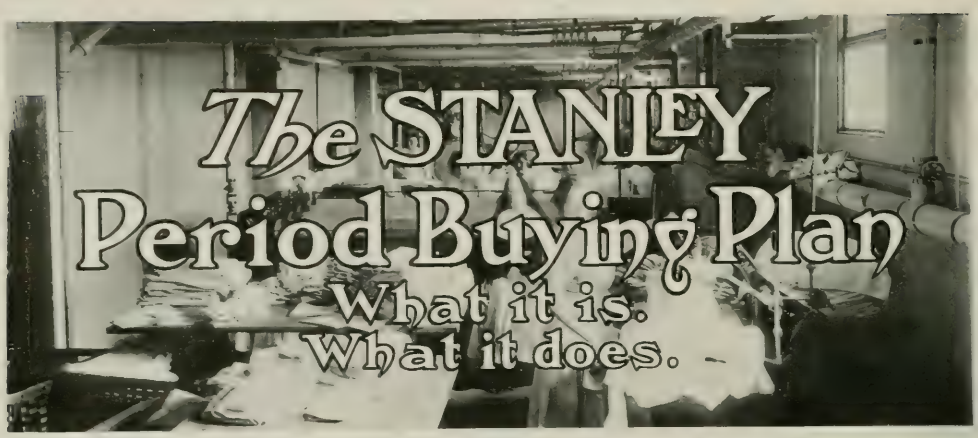
There's a DEE-CEE fixture to meet every hospital requirement

Pettingell - Andrews Company

On the Site of the Boston Tea Party

BOSTON, MASS.



THOSE hospitals desiring to save money on laundry supplies—please read.

The Purpose

Those hospitals operating their own laundry department are large buyers and users of laundry supplies, but are not considered so as compared to the larger commercial and public laundries.

Commercial laundries, being large buyers, naturally obtain lower "large order" prices on the soap, starch, bleach, blue, pads, coverings, and other supplies that they buy.

The purpose of The STANLEY Period Buying Plan is to enable hospitals to secure the same low prices as are obtained by the bigger laundries.

The Plan

The STANLEY Period Buying System is to encourage hospitals to place larger orders for laundry supplies, not orders for more than they can use, but by extending the order over a period of six months or a year make the order as large as that of the commercial laundry.

As these period orders are placed, the goods are set aside and are shipped out in such amounts and at such times as is desired by the hospital, but are paid for as the goods are received and not all at once or in advance.

Why We Are Able to Offer Lower Prices

The reader will at once see why under such a plan we are able to offer and maintain lower prices on laundry supplies than those offered by other manufacturers and dealers.

Proof that Our Prices Are Lower

That we do offer and maintain lower prices than other manufacturers and dealers is evidenced by the amount of business we do, and by the number of hospitals employing The STANLEY Period Buying Plan in the more economical and satisfactory buying of laundry materials.

Let Us Know Your Requirements

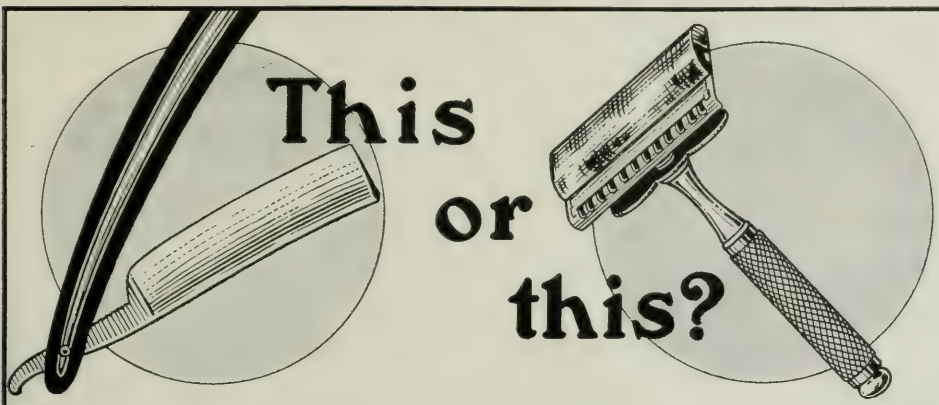
Send us a list of the different kinds of materials your laundry department uses and the amount of each used during three or six months or a year; we can then get down to prices. Not down to business or orders unless you see fit to do so. Candidly, we think you will favor us with some business.

Call in your Laundry Foreman or Forelady, ask him or her to make up such a list. Attach it to your letterhead and mail it to us today, tomorrow at the latest.

Our figures and prices will prove interesting—valuable—profitable. See if they won't.

The Stanley Laundry Supply Co.

625 West 30th Street, New York City



Put yourself in the nurse's place. Which style of razor would you prefer to use in shaving a patient? So would the nurse.

'Ever-Ready' Safety Razor

affords a quicker, safer, easier, and painless shaving of patients in preparing them for operations without any danger of cutting the patient and without any danger of infections arising from abrasions of the skin.

The design of the razor enables the operator to easily shave any part of the body regardless of how tender the skin or tough the hair. The inexperienced person soon becomes an expert.

Always a clean, sharp blade ready for immediate use (and there are 12 with each $1.00 outfit), though the life of blades is materially lengthened through the use of an Ever-Ready Stropping Machine.

Ever-Ready Razors may be sterilized the same as any surgical instrument, and are far superior for surgical purposes to the old-fashioned, cumbersome, and dangerous style of razor.

You can trust the Convalescent to shave with the Ever-Ready!

Send $1.00 for a sample outfit
Your money returned if unsatisfactory

$1.00 COMPLETE
Ever-Ready Safety Razor with 12 Radio Blades

AMERICAN SAFETY RAZOR CO., Mfrs., Johnson and Jay Sts., Brooklyn, N. Y.

An Announcement

of the Entry of House of W. S. Ensign, Inc.,

into

The Hospital Furnishing Field

One of the best known outfitting and furnishing houses in New York is that of W. S. Ensign, Inc., at 5 East 19th Street. For several years this house has furnished many large Hotels, Clubs, and fine Residences with China, Glassware, Bedding, Furniture, Rugs, Curtains, Carpets, Etc.—in fact from cellar to the topmost room.

The success of this firm has been marked, and can be attributed to three factors—a stock so wide and varied that the house has become headquarters for its line of goods—a very high quality of merchandise coupled with a selling policy seeking a large volume of sales at moderate margin of profit—a guarantee of satisfaction that backs up every purchase from the smallest to the largest.

During the past few months many inquiries have been received from hospitals which have learned of the dependability, quality, and value of Ensign Furnishings, and several orders have been taken from these institutions.

These orders have pointed the way for the house of Ensign to enter a field where there is an evident need for its service and stock—for it catalogues thousands of large and small articles used in the outfitting and daily operation of hospitals. The management, therefore, has decided to make the furnishing and outfitting of Hospitals and Institutions an important part of future Ensign Service.

Whether you have one room or a thousand to outfit, or whether you need only miscellaneous articles in China and Glassware, Furniture, Room Furnishings, etc., you will profit by getting in touch with W. S. Ensign, Inc. No order is too large or none too small to merit attention.

Your name should be on the Ensign Hospital Mailing List. If you would like it placed there, write the request. See coupon attached.

SIGN AND MAIL US THIS COUPON

W. S. Ensign, Inc., New York City.

Please add our name to your mailing list, sending us, as you issue, your literature and special price lists on Furnishings for Hospitals.

Hospital .....

Signer .....

Address .....

City ..... State .....

THREE GOVERNMENT HOSPITALS IN WHICH THE BRYANT SYSTEM IS USED

It is popularly assumed that Uncle Sam comes from all over the country, but it is our experience that he is a native Missourian—he has to be shown.

That He has been shown in the matter of hospital signal systems is evidenced by the selection of the

BRYANT SILENT CALL SYSTEM

BRYANT SUPERIOR WIRING DEVICES

for use in numerous Government hospitals recently erected. The illustrations above show three institutions in which there are a total of approximately 100 Bryant calling stations. These institutions are:

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Red Lake, Minn.
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Anchorage, Alaska
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Presidio, Cal.
(Lower)

A copy of our Hospital Signal Bulletin will convince you that the Bryant System possesses exclusive features of safety, convenience, reliability, and economy of operation. Ask for a copy.

THE BRYANT ELECTRIC COMPANY

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Don't throw away DAMAGED RUBBER ARTICLES

Mend them—*permanently*

Put them back into service good as new

PATCHIT, the new liquid rubber—and that's all it is, just liquid rubber—saves many dollars in hospital service.

Torn and damaged rubber articles, formerly consigned to the scrap heap, can now be given new life and used until the whole article is literally worn out.

No one wants to throw away something almost new just because of a slight cut or tear—especially in these days of high-cost rubber.

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Rubber gloves are mended from the inside, forming a thin elastic film which does not interfere with sensitive touch.

Mends and saves:

Hot water bottles	*Ice bags*	*Rubber blankets*
Rubber gloves	*Rubber sheets*	*Bulbs*
Air rings	*Bath sheets*	*Kelly pads*

Just squeeze it on—like tooth-paste. It "sets" smoothly and evenly. It knits the torn edges together—a firm, strong, elastic bond—becomes a part of the article itself.

Not a patch, but a self-vulcanizing "weld" that won't peel off—a permanent mend.

Send $1 and attached coupon for sample tube—enough to mend two dozen ordinary hot water bottle tears or leaks.

PARA RUBBER PRODUCTS COMPANY

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PARA RUBBER PRODUCTS COMPANY

Gentlemen: Inclosed find $1. Please send me, postpaid, $1 tube of PATCHIT.

Name .....

Hospital .....

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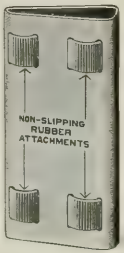
Two New Nursing Appliances

A Sample of either, or both, of these Appliances will be sent on Approval to any Hospital in the U. S. Try for Twenty-Four Hours, and if not satisfactory return at our Expense

Non-Slipping Knee and Thigh Support and Foot Brace

Keeps the Patient from Sliding Down in Bed



Bottom View, Showing Non-Slipping Attachments

A Comfort-Giving Appliance Needed in Every Hospital

Patent Applied For

Supports and Rests the Knees
Fowler Position Obtained When Used with Back-Rest
Makes a Comfortable Head-Rest

Bed-ridden Patients invariably slip towards the foot of the bed, and lifting a patient up again means quite a little laborious work for the Nurse. The Meinecke Knee and Thigh Support prevents a Patient from slipping down.

The illustrations on the opposite side show the many uses to which this Appliance can be put.

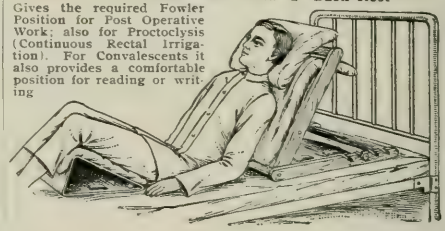
The Rubber Attachments on the bottom, which prevent the Knee Support from sliding on the bed, are corrugated and are detachable. The Support itself is made of light-colored, fine quality Veneered Wood, and is varnished all over with Valspar Waterproof Varnish.

Illustrations Showing How The Non-Slipping Knee Support is Used

No. 1—As a Knee Rest and Thigh Support—Prevents the Patient from sliding down in Bed. Gives a more comfortable position by flexing the knees, thus relieving all strain from the Spine and Abdominal Muscles. This makes it especially valuable after childbirth.

No. 2—As a Foot Brace
Prevents the Patient from sliding down. Also useful as a brace for the Feet when a Patient is eating, especially if he is holding the Tray on his lap.

No. 3—In Combination with a Back-Rest—
Gives the required Fowler Position for Post Operative Work; also for Proctoclysis (Continuous Rectal Irrigation). For Convalescents it also provides a comfortable position for reading or writing

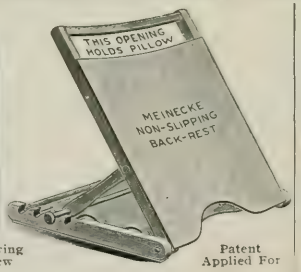


Net Wholesale Price to Hospitals.....Each, $3.75

Non-Slipping Back-Rest with Pillow Holder

The Rubber Attachments on Bottom Prevent the Back-Rest from Slipping on the Bed

Closed, Showing Bottom View



Patent Applied For

Total Length, 22½ Inches; Total Width, 20½ Inches
Weight, about 7½ lbs.

The main features of the Meinecke Back-Rest are the Non-Slipping Attachment and the Pillow Holder.

All other Back-Rests slip on the bed and slide away from the Patient. This is prevented in the Meinecke Back-Rest by the use of corrugated Rubber Attachments which are detachable. The Pillow Holder also prevents the pillow from slipping down, even when the Patient leans forward.

This new Rest is light, but very strong, and is easy to place under a Patient, and to adjust to the various positions. It is made of fine quality Veneered Wood, and is coated with Valspar Waterproof Varnish. It is neat, compact and durable.

The back portion is slightly curved, and the lower end is so made that there is no pressure on the end of the spine, no matter at what angle the Patient is lying or sitting.

Net Wholesale Price to Hospitals.....Each, $5.00

Meinecke & Co., 66-70 Park Place, New York

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to their Medical, Surgical, and Nursing Services

Vol. VIII *April, 1917* No. 4

A MODEL HOSPITAL ESTABLISHED AND MANAGED BY CHINESE

The Central Hospital of Peking Planned by Chicago Architects on Modern Lines—Chinese Medical and Nursing Staff in Charge—Chinese Cement and Iron Used in Construction[1]

By WU LIEN-TEH, M. D. (Cantab.), Medical Director

ONE of the modern enterprises that are attracting wide attention in the new Republic of China is the Central Hospital of Peking, which is to be financed and controlled entirely by Chinese. The inhabitants of this ancient land are known to be very conservative, especially in matters of medicine and public health, and the establishment of China's model hospital is a reminder to America that her sister republic across the Pacific is forging ahead. The readers of THE MODERN HOSPITAL may be interested to learn that the trustees of the hospital have employed Messrs. Shattuck and Hussey, the Chicago architects, to devise the plans and superintend the construction. The roof of this hospital is now on, and it is expected that the opening will take place some time next autumn. Already several orders have been executed by American firms, mainly through the medium of the advertising pages of THE MODERN HOSPITAL.

SITE

The hospital is situated in the west city on the main Ping Chih Men Street; the site was presented for the purpose by the Ministry of the Interior. Several odd lots in the neighborhood, as well as the old houses situated in that locality, were purchased at a total cost of $21,000. The ground is high, being nearly 3 feet above the level of the street. The lot is of the shape of an irregular quadrilateral, wider in the south than north. The building stands on the front part, while the back or northern part, with many strongly built old houses, will be kept for future purposes. The famous Temple of Imperial Ancestors lies next door to the present hospital, and its many fine trees will be a great asset.

ELEVATION

The type of building devised is distinctly American, consisting of a basement floor, the windows of which are at least 6 feet above the level of the ground and three floors above this. In front is a projecting wing for the main front door, whilst at either end is a bipartite wing with an intervening veranda containing the main third class wards and their solariums. The roofs of the wings are used as flat roof gardens. The shape of the building was finally decided upon in order to obtain the maximum of light with a minimum of exposure to northern winds in winter, and also to meet the objection of Chinese patients to rooms facing direct east and west. The whole building is 262 feet broad, an average of 90 feet deep, and 65 feet high.

GENERAL GROUND PLANS

The ground plans are mapped out in the form of a straight wide rectangle facing north and south, with a central corridor running from east to west. In front, facing the south, is the projecting wing for the front door and reception rooms; behind, to the north, are the three wings of the boiler room (with the operating theater above) in the middle, and a unit of the third-class general ward on either side; while at the eastern and western ends are bifurcated wings forming

[1]Fig. 5 is here presented by courtesy of Dr. Wu Lien-teh and of The Survey.

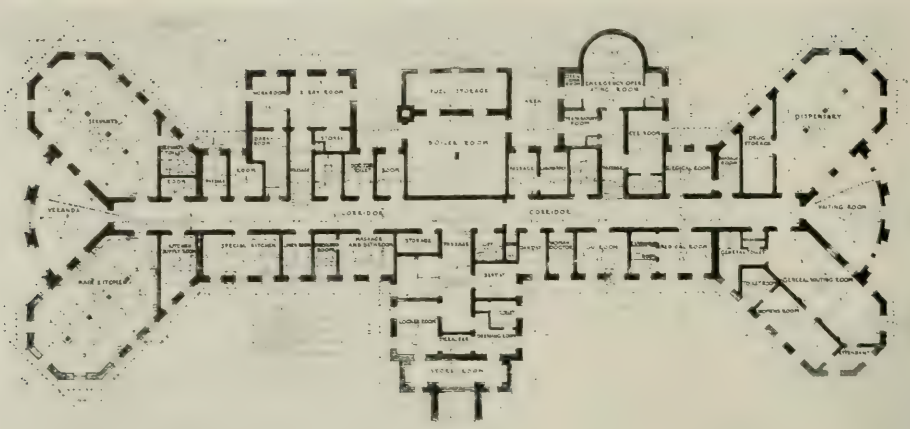


Fig. 1. Basement floor plan, Central Hospital of Peking.

the main third-class ward with a solarium occupying the space between the forked pieces. The corridor is 8 feet wide, and practically all rooms lead directly into it. Besides the electric lift, one central and two lateral staircases connect the various floors, and a fire escape runs from one floor to another through the eastern and western solariums.

Basement Floor.—The entrance for out-patients is situated in the eastern wing. The central corridor runs in a straight line from here to the western wing. The rooms lying south of this corridor are: one men's and one women's waiting room with toilets (capable of accommodating 200 persons altogether), medical room, genitourinary room, gynecological room, dental rooms, disinfection room (with adjoining bath and locker rooms), massage and electrical department, linen room, special kitchen, ordinary kitchen (for cooking Chinese meals). To the north of the corridor are, respectively: dispensary, store room for drugs, surgical and bandage rooms, ophthalmic rooms, emergency operating rooms, emergency laboratory, boiler and fuel rooms, general store room, x-ray and photographic rooms, chief attendant's room and attendants' room (with accommodation for 35), with toilet and shower baths. The veranda between the kitchen and attendants' room will be used as a dining room for the lower staff.

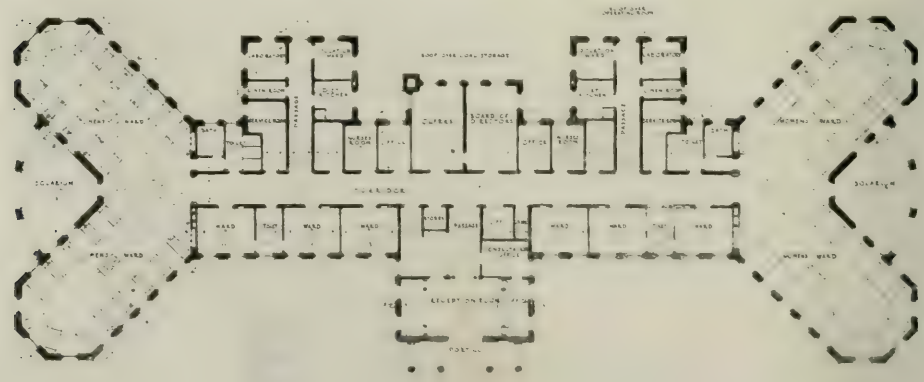


Fig. 2. First floor plan, Central Hospital of Peking.

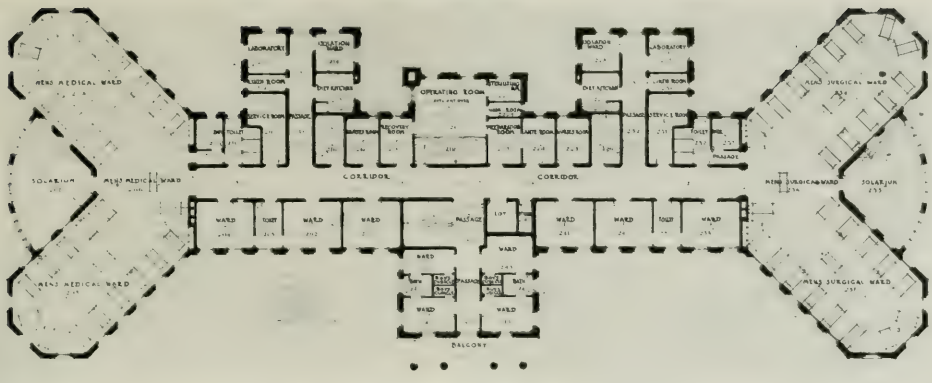


Fig. 3. Second floor plan, Central Hospital of Peking.

First Floor.—The front door steps lead to a portico and a main reception room, on the right of which is the inquiry office, and adjoining this is the superintendent's office. Behind this are the central staircase and the lifts, one on either side. Across the corridor one steps into the board room (for meeting of trustees, etc.), and clerks' room, from the doors of which a fair-sized veranda situated above the fuel room may be reached. Going toward the east wing lie a series of second-class private wards, facing the south, each capable of accommodating two patients, while the large third-class general ward with space for 25 beds occupies the whole of the forked wing. The rest, a model general ward unit, consisting of a bath room, toilet room, service room, linen room, laboratory, isolation ward, diet kitchen and sister's room, is placed on the north side of the corridor. On the west side, the general ward unit and private wards are arranged in the same way.

Second Floor.—The second floor is divided up in the same way as the first floor with the exception of the central part. Immediately above the reception rooms are situated first-class wards, each capable of holding one patient and possessing separate bath rooms and toilets. On the other side of the central corridor is the operating theater unit, consisting of sister's room, anteroom, preparation (anesthetic) room, sterilizing and wash room, operating room (with space for a movable auditorium), and recovery room. The wings on either side of this are arranged in the same way as on the first floor, namely, second-class private wards and third-class general wards and units. The wards on this floor are intended for surgical male and female cases.

Third Floor.—The central portion of the third floor is reserved for first-class wards containing private verandas. On the east are situated quarters for the superintendent and assistant medical officers, while the western wing is divided up into large analytical and bacteriologic laboratories where routine and research work will be carried

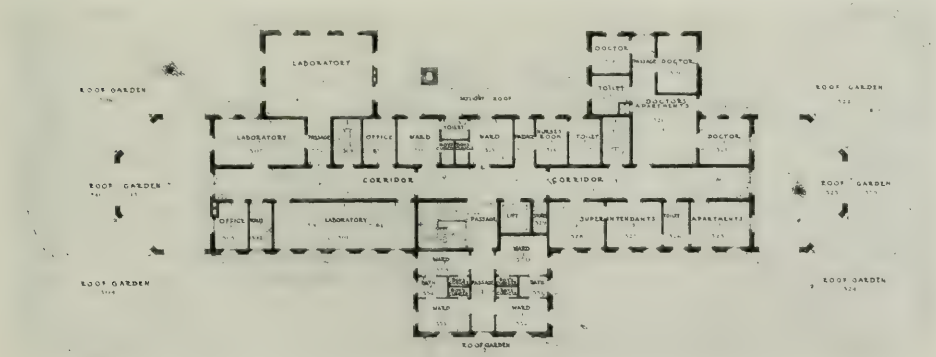


Fig. 4. Third floor plan, Central Hospital of Peking.

Fig. 5. One way of conveying patients to the hospital is on the back of some friend or relative.

out. The forked extremities serve as roof gardens for patients requiring the sun treatment.

OTHER POINTS

The building is of gray brick with a roof of red tile. The total number of beds will be about 150. The whole hospital is of fireproof construction, being the first building of its kind in the capital. Both the cement and the iron rods used are of Chinese manufacture, and considerable discounts have been allowed by various firms for this charitable undertaking. All the wards will be laid with Walton linoleum, and a hot water installation will be adopted for heating. The Customs Board has allowed materials ordered for the hospital to come in duty free, while the railways have charged half rates for conveyance. Most of the surgical and bacteriological instruments, costing over $25,000, have been presented by government institutions. When the building is completed next spring, the total cost will surprise the most critical in its moderation. It is expected that the whole building and equipment will cost a quarter of a million dollars. The hospital being mainly a voluntary establishment, the most rigid economy will be enforced in all directions consistent with efficiency, and it is hoped that the success of the scheme may induce other cities in China to move and so spread modern medical science through the length and breadth of this great land.

The resident medical staff of the hospital will be chosen from the most promising Chinese who have graduated from medical schools of different countries, including China. The visiting physicians will consist of specialists living in the capital who may desire to cooperate. The

Fig. 6. Readers of Dr. Wu Lien-Teh's article on the Central Hospital of Peking will be interested to know that in the distant town of Taheiho, shown in this picture, the Chinese Government has built another modern hospital. This picture is shown by courtesy *The Survey*.

nursing staff will be Chinese, with a sister in charge of each unit.

Included in the Central Hospital scheme is a clinic in the southern, more crowded, section of Peking, where paying and other patients may be seen and sent to the large hospital in case of need. For this purpose a motor ambulance service will be established. It is also proposed to build a sanatorium on the western hills, to which the convalescent patients may be sent. The land required for this purpose has already been granted, and the trustees are only waiting for some charitable donor to provide the necessary funds, amounting to $15,000, for starting the work.

HOSPITAL WORK IN THE ISLAND OF PORTO RICO

Churches Are Leading in Health Service—Radical Progress Being Made—Tropical Diseases Object of Activity—New Presbyterian Institution, Its Architecture and Work It Is Doing

By E. RAYMOND HILDRETH, M. D., Superintendent Presbyterian Hospital, San Juan, P. R.

PORTO RICO is becoming better known to an increasing number of Americans year by year. This is both because it is a part of the United States and so is more talked and written about, and because of the natural beauty of the island. Tourists like to return and recommend the trip to their friends. Porto Rico is "all scenery," and, thanks largely to American leadership, its 80 miles of macadam roads of nineteen years ago have been increased to 1,000. Perhaps the other most marked changes during these years of American occupation have been the establishment of a public-school system second only to our own, the economic development as shown by the greatly increased volume of trade, and the work of the churches. This latter has brought new life, spiritual, moral and physical, to the Porto Ricans. The eradication and prevention of disease should be ranked also among the really important achievements of this period. Following the discovery of the prevalence of uncinariasis by Dr. B. K. Ashford, much has been done by the government and other agencies to remove this handicap to mental and physical efficiency. Much also remains to be done, but as illiteracy, poverty and ignorance of hygiene are lessened the task becomes easier.

Porto Rico is one of the most densely populated countries in the world, with its million and a quarter inhabitants, or more than three hundred to the square mile. The largest city, San Juan, has only about fifty thousand, and the people are pretty evenly distributed throughout the island. In Spanish times there were practically only two classes, the rich who owned the property and governed, and the very poor. The medical needs of the latter were attended to by "municipal doctors" appointed by the cities and towns. They were given a small salary and allowed to engage in private practice as well. The people were attended in their homes and in dispensaries, but the doctor would not go outside the town unless well paid, so the poor people in the country had practically no medical attention. Most of the larger towns had small hospitals or rather buildings so called, though they rarely deserved the name. There was no modern equipment and the nursing was done by ignorant servants or by sisters who had no scientific training. The doctors received their education in Europe where trained nurses were unknown.

The hospitals were for the poor only, the rich being attended in their homes or going to Europe for treatment when that was possible. During the past ten years, however, many Porto Ricans have graduated from medical colleges in the United States, and largely under their direction there are a number of small, fairly well-equipped hospitals. Besides these, the Presbyterian Church has a hospital in San Juan on the north coast and one in Mayaguez on the west end. The Episcopalians have one in Ponce on the south shore, and the Congregational Church is building one at Humacao on the east end of the island.

Presbyterian Hospital, San Juan, Porto Rico; the new building now nearing completion.

The work which is being carried on in the Presbyterian Hospital in San Juan was begun as a dispensary work by Dr. Grace Atkins, who was

sent down as a medical missionary by the Woman's Board of Home Missions in January, 1901. So many of her patients needed hospital treatment that the following year she returned to the United States to appeal to the churches for funds, with the result that in 1903 property was bought on the ocean shore and a hospital with 45 beds was erected. The location is ideal, just outside the city, overlooking the water, receiving the full benefit of the cool northeast trade winds nearly all the year.

Our experience has taught some valuable lessons as to correct hospital construction in the tropics. First, as to materials: There should be as little wood used as possible, because the heat and moisture, together with various boring insects, causes rapid deterioration. Frequent painting is a help but not a cure. The cost of upkeep is too great, and this is why the present wooden building are to be torn down after only thirteen years of service, as soon as the new building is completed. This was begun in February, 1916, and is to be entirely of reenforced concrete, with concrete and tile roof. Another important problem which directly concerns the comfort of the patients is that of ventilation. Plenty of light must be provided, but each room must be protected from the glare and heat of the sun. Special attention must be paid to the direction of the prevailing winds, which here are fortunately from one direction practically the whole year. Provision should be made for the free entrance of the breeze to every room. Plenty of wide porches are needed and greatly hasten convalescence. Where possible, beds can be placed on the balconies to advantage. The almost universal plan of a central open space or patio seems to give excellent results in favoring free circulation of air.

The extent and character of the work as well as its growth are shown in the following statistics for 1907, the first year for which the complete figures are available, and those for 1916:

	1907	1916
Patients treated in hospital	454	744
Patients treated in dispensary	6,687	29,686
Out-patients visited	204	247
Total patients treated during year	7,266	30,677
Operations performed	284	796
Days of hospital treatment:		
A. In wards—Men	3,354	4,209
Women	3,108	3,619
Children	1,030	2,914
B. In private rooms—		
Men	1,622	1,171
Women	1,290	1,778
Total	10,404	13,691

Among the diseases treated uncinariasis easily holds first place. When its presence was discovered on the island, about 90 percent of the people living in the country districts were affected. Recent investigation has shown that this has been reduced about one-half. While rarely fatal in itself, it greatly decreases the amount of work which can be performed by the individual affected and predisposes to other diseases. Among the poor, lack of proper care of the mouth and teeth leads to early decay and pyorrhea. These conditions, with insufficient, improper, and poorly prepared food, produce disturbances of gastric and intestinal digestion and are the causes, direct or predisposing, of numerous intestinal infections. Dysentery, bacillary and amebic, is of frequent occurrence. Ulcer and cancer of stomach and intestine, while found, seem less common than might be expected. Many cases of tropical sprue are found, almost entirely near the coast. It seems relatively more frequent among Americans than among Porto Ricans. A specific monilia which has been isolated from cases by Dr. B. K. Ashford seems to be the active infective organism. Pneumonia is rare, but bronchitis and bronchial asthma are common. Tuberculosis is widespread, especially the glandular and pulmonary forms. Bone and joint tuberculosis is common among the children. Microfilaria are found in the blood in from 6 to 10 percent of the people. In the majority of cases this does not seem to be associated with symptoms. Superficial lymphangitis and adenitis are common, and elephantiasis is frequently seen. In some of these cases filaria are present, though the active causative agent is undoubtedly bacterial. There is probably a relation of symbiosis between the bacteria and the filaria. Malaria occurs in many parts of the island, and is usually of the tertian form, though the estivo-autumnal is found. Venereal disease is widely prevalent. A few cases of pellagra are found, and beriberi is occasionally seen. Leprosy occurs, and about forty cases are segregated on a small island in San Juan harbor. In addition to all these, the ordinary medical diseases are treated as in similar hospital and dispensary work in the United States.

The last statement holds also as regards surgical conditions. Among the men, hydrocele and hernia are especially common. The former is often associated with elephantiasis of the scrotum, sometimes forming large tumors. One such tumor removed several years ago weighed 20 pounds. Among the women pelvic infections are frequently found, and extensive lacerations of the pelvic floor with complete prolapse of the uterus. Practically all the obstetrics among the poor is

done by midwives, of whom very few have adequate training. Carcinoma of the cervix uteri is rather frequent and usually inoperable before medical advice is sought. Owing to the lack of facilities for doing surgery elsewhere, the majority of the cases admitted to the hospital are surgical.

Of the 45 beds in the hospital, 11 are in private rooms, and the other 34 are in wards for the poor, who can pay very little if anything for their treatment. At present the work is done almost entirely by the resident physician and three interns, two of whom are Porto Ricans and the other an American. The service affords an excellent opportunity of becoming familiar with tropical diseases as well as obtaining general medical and surgical training. Under four American graduate nurses a training school with about twenty Porto Rican pupil nurses is conducted. In a land where only a few years ago a trained nurse was unknown, the demand for their services greatly exceeds the supply. A department of district nursing has also been established, and valuable pioneer work done in that direction.

Finally, the work is missionary, and religious services and Bible distribution are considered an essential part of the work, that the soul may be ministered to and healed as well as the body.

HOW A REAL HOSPITAL STARTED AND GREW

Small Group of New York Women Improvise Care and Treatment of "After-Care" Poliomyelitis Cases—Small Facilities Put to Large Use—A Hint to Others Who Are Anxious to Identify Themselves With Helpful Work

By LUCY OSBORNE WIGHT, M. D., Physician to the Day Home and School for Crippled Children; Professor of Electrotherapeutics, New York Medical College and Hospital for Women, New York

SOME sixteen years ago, a small group of women of the Lenox Avenue Unitarian Church, led and inspired by Mrs. Merle St. Croix Wright, established a day school and summer home for crippled children. Until then no educational facilities were available for the crippled child who was too poor to pay for private instruction, and there was no place for recreation or summer outing. This work has been carried on successfully all these years, and many a cripple today owes his ability to work and compete with the rest of the world to the faithful pioneer effort of this small and unobtrusive band of women.

When the recent epidemic of infantile paralysis began to assume such terrifying proportions, an idea that had long been fermenting in my mind took definite shape. At an informal meeting called the latter part of last July, I laid this scheme before the few directors then in town and readily convinced them of the desperate need that would soon arise for a permanent convalescent home for children soon to be discharged from the hospitals.

Having worked for years in the Orthopedic Dispensary, I knew there would be many such children with homes so wretched that, no matter what treatment facilities might be provided by clinics and dispensaries, the home conditions would preclude any chance for recovery. We have had a wonderful nucleus for such a scheme. The Adee House in Pelham Bay Park, given us by the city for a summer home, was ours for the next five years. Why not enlarge the scope of our work and endeavor to found and establish a permanent convalescent home for the victims of infantile paralysis? For years we have been caring for cripples; why not now do something to prevent some child from becoming a cripple?

The proposal met with a most enthusiastic response. An immediate appeal for funds was sent out (we were the first, by the way, to appear in the public print and show the need of after-care), and the response was hearty and generous. To our great disappointment we found that the Adee House, so ideal in the summer, was unfit for winter use; there were no adequate heating or lighting facilities and it would require a large sum of money to install this plant. We applied to the city officials to do this for us, but so far without avail. Nothing daunted, however, and in view of the dire need, we decided to begin our work, even if on a smaller scale than originally intended. I remodeled the upper story of my own house and the "Temporary Convalescent Hospital of the Day Home and School for Crippled Children" was opened November 14, 1916. Again, we were the first to provide this means of after-care.

It is a well-known fact that the convalescent stage of this disease, (consisting of the first two years following the onset) is the most important and crucial period, that in which the greatest gain in the matter of ultimate function is attained, in which most deformities can be prevented, and in which the majority of muscles that are only weakened but not paralyzed can be restored with skill-

ful training and care to their ultimate degree of function.

The eight beds allowed by our limited budget were soon filled by the little victims in varying stages of paralysis. Discharged from the hospitals, the acute stage passed, danger of infection no longer existing, they had been returned to their utterly wretched homes and left to their fate. The dispensary treatment that might have been theirs would be of no avail—in fact, would defeat its own ends. What good to bring a hungry, insufficiently clad child to the clinic, treat, stimulate and fatigue it, then return it to its tenement, where it has neither warmth, nor quiet, nor even proper food? On account of their helpless condition and the prolonged treatment required, there was *no* institution that would accept these children.

It is a matter of intense regret that our space and means are so limited. Hardly a day passes that we are not implored and importuned to take another child, and, although there is room for only eight, we have stretched our capacity and taken in a ninth child badly paralyzed and sadly abused by drunken parents. The ages vary from 2 to 7 years. They are all severe cases with many muscles involved, and the prognosis swings from "fair" to "very poor." Barely three months have elapsed, yet, if the test of anything is satisfaction, we are completely satisfied. The change in the general condition of these children is almost miraculous. It is too early to speak of improvement in the disease, but even here the improvement is as marked as it is unexpected.

Dr. Gibney, at a recent meeting of the After-Treatment Committee, outlined the equipment necessary for a hospital or dispensary treating anterior poliomyelitis cases as follows: an orthopedic surgeon, a neurologist, a pediatrist, an electrotherapeutist, masseuses, trained nurses, a specialist in muscle training, and a complete electrotherapeutic outfit. These plans and specifications we meet fully. Dr. Benjamin P. Farrell is our orthopedic surgeon. Dr. Helene Correll Lowenstein, for more than eighteen years neurologist of the Orthopedic Hospital and Dispensary, one of our directors, is invaluable, and regularly inspects and treats each child and assists me in applying splints, etc. Dr. Walter Whitcomb Strang, our pediatrist, visits the children at regular intervals. Electricity, radiant light baths, massage, and muscle training are given by me or under my constant personal supervision. We have two trained orthopedic nurses.

The officers of the important Committee on After-Care of Infantile Paralysis are following with the greatest interest and sympathy our endeavor, and, being convinced of the necessity and practicability or our scheme, are extending all the aid in their power, providing us with splints, braces and appliances when needed.

It is an interesting fact that no home or hospital exists where children stricken with this disease can find sanctuary with care and treatment. The tuberculous child is well looked out for; the poor infantile paralysis case has nowhere to go. This disease, like the poor, is always with us, and each summer brings its regular quota. Dr. Flexner warns us that another serious epidemic is threatened next year. Happily we do not often have such a blasting epidemic as this one, leaving over six thousand children to be cared for by the benevolent of this generous city.

Although our hospital is so small and our effort so intensive, I feel more than ever justified in having launched this ambitious attempt to establish a convalescent home where these poor little atoms, caught in the vicious circle of poverty and disease, may get the care necessary in the first two crucial years to insure them the minimum instead of the maximum amount of deformity inevitably theirs, left as they are to the inability, ignorance, and indifference of their parents.

If, then, we succeed, we shall have the proud distinction of being the first in this country to see the need of and to establish such a constructive and imperatively needed work for the unfortunate victims of the most cruel fate that can strike an innocent child, infantile paralysis.

Maternity Lectures for Chinese Mothers-in-Law

The mother-in-law is a factor of immense importance still in China; this is clear from a little story told by Miss J. A. Clouting in the *China Medical Journal*. Pioneer hospital work in Szechwan was hampered by the absence on furlough of the only C. M. S. doctor. The question how to employ the time with greatest benefit to the native population was answered by the idea of giving a course of maternity lectures to women. The subjects were: (1) cleanliness of house and patient; (2) cleanliness of attendant; (3) the human body; (4) normal labor; (5-6) difficult labors; (7) hemorrhage; (8) care of the child. The women were deeply interested, and old women who "had never exhibited any intelligence" listened eagerly, and begged the brighter ones to explain to them later.

In lecturing, Miss Clouting adds, one has to be careful of tones. "Instructing them how to perform artificial respiration, there was a smile on many faces as one not very intelligent mother-in-law repeated gravely after me, 'One, two, three, *dead!*' as she extended the infant's arms and brought them slowly down again. We then changed the fourth character so that she said in Chinese, 'One, two, three, *alive!*' and the smiles changed to a hearty laugh."

Success is for all who are willing to pay the price of admission, but there are no complimentary tickets.—A. Pike.

A SANATORIUM WITH A HOMELIKE ATMOSPHERE

Green Gables, Lincoln, Neb., the Life Work of Dr. B. F. Bailey—Family Spirit Preserved in the Institution—A Hospital and Home That Is Still in Development

By A FIELD EDITOR OF "THE MODERN HOSPITAL"

TO create a sanatorium in which mental as well as ordinary medical cases are cared for, to manage it successfully, and at the same time to preserve the homelike spirit in it, is a task requiring high ideals, much tact, and great insight into human nature. It is, therefore, of interest to examine some of the features of an institution in which success of this character has been achieved—namely, "Green Gables," the Dr. B. F. Bailey Sanatorium at Lincoln, Neb. When Dr. Bailey came to Nebraska from New Hampshire, the need of an institution to care properly for sick people was very evident.

In 1901 he bought twenty-five acres four miles from town and started a sanatorium modest in equipment and limited in capacity. Gradually the work grew until a building was finished which can comfortably care for 40 patients as well as the medical staff and the nurses. Being a New Englander, Dr. Bailey named the building "Green Gables" (Fig. 1), and the red walls and green roofs of the various buildings are landmarks for a great distance.

The interior of the building as it stands today is modern and complete. The rooms are light, sanitary, and nicely furnished. Now and then the biblical allusion to the "chamber on the wall" seems apposite, as the sanatorium is often so crowded that original means must be used for caring for people who come unannounced and cannot be turned away.

In many ways this is just like any other sanatorium, but there are some few things in which it seems to be different. There is an atmosphere of home life and family spirit in the place. Perhaps the general sitting room, with its piano, victrola, and card table, are aids. The men have a pool table, card table, and piano in the amusement room, and these prove to be great melting pots, as they dispel caste and formality. The large family dining room also draws the patients closer, and the convalescents enjoy having their meals together. As the sanatorium is in the country, friends and families are welcome if they drop in at meal time.

Fig. 1. Green Gables. Main building.

While Dr. Bailey does not make a hobby of diets, he has fitted up a diet kitchen (Fig. 2) which is adequate for every demand, and made

Fig. 2. Green Gables. Diet kitchen.

a careful selection of equipment. The electric stove renders cooking a delight, and other conveniences make homely tasks a pleasure. A graduate dietitian has the direction of the work. The roentgenology room is perfectly fitted, and excellent work is done in that department. A great many x-ray treatments are given and good results are obtained.

From "Green Gables" there is a clean cinder path and driveway to the building for mental cases. It is called "Rest Cottage" (Fig. 3), which seems an appropriate name for the mentally and physically weary. The original building was put up in 1905, and in 1912 another fireproof brick building was added, connected with the first one by sun parlors. It has 45 beds. In the corridor on the second floor is a piano and a small victrola which daily makes the rounds of the three floors. The patients spend hours out-of-doors each day, and such of them as are able and enjoy it are

Fig. 3. Green Gables. Rest Cottage.

given light work on the grounds, as weeding the prevalent dandelions or watering flowers. The women do small tasks in the house, not enough to permit dispensing with a servant, but enough to give them a fair amount of exercise.

On the first floor of "Rest Cottage" are the dining rooms and kitchen. They are just newly painted, as is the whole cottage, and are very bright, attractive rooms. There are separate dining rooms for the men and women. The cottage has the appearance of light, which perhaps is a prophetic prognosis for the mentally darkened within. The walls are white and the furniture is white. It is also possible to wash everything in the rooms. There are no dark corners, and yet there is not a glare of light.

As the institution is in the country, there are the various houses for the farm animals. The Holstein herd is inspected by the Government, and is cared for in a sanitary barn with a cement floor and separate milking stalls. The laundry building has all the electrical equipment needed to do the work, the second floor being used for servants' quarters.

The training school has forty nurses and six graduates at the head of the various departments. Young men as well as young women are trained; this does away with employing orderlies and gives a better working atmosphere, besides supplying a necessary addition to the nursing profession. To supplement the training here, six months affiliated work is given at Cook County Hospital, Chicago. In that way experience is given in every nursing branch from mental to contagious cases, besides the work of the average hospital.

The sanatorium park is unusually pretty, nearly all the trees having been set out since Dr. Bailey came here. This is a prairie country, and few trees are native, so each year new ones must be added, which will live as a monument of increasing beauty long after those who are building and planning now have gone, and fitting memorials, more beautiful than bronze or granite, while they are living.

It was Dr. Bailey's intention when he opened the institution to have a place restful and surrounded with the atmosphere of a great home, yet lacking nothing that might be needed.

STORY OF AN INSTITUTIONAL LIBRARY

Developed From Small Beginnings and Conducted by Patients at Low Cost—Paid for Like Other Essentials—Gives Work-Cure to Many

By MARGUERITE H. BURGOYNE, Occupation and Recreation Manager Burke Foundation, White Plains, N. Y.

THOSE writing and speaking of the institution library usually insist that a trained and high-salaried librarian be placed in charge and given no other duties, if success is to be attained. Perhaps this preachment has, on the whole, done more harm than good, by deterring many institutions from starting and doing fairly well with such means and facilities as are readily available.

Nearly every institution, large or small, caring for human beings in whatsoever way, should have a library. In most of them the addition of another department with an important head is clearly impracticable—for organization as well as financial and other reasons. Other large needs are generally and justly regarded more pressing. But there should be the library, and it should not wait for donated books (so often unsuitable and hard to be got out of the way), or special gift of money, or large room with open fire, or skilled librarian.

It is, of course, agreed that the latter is essential and productive in many large places, especially where the inmates have permanent or long residence, and that there is room for much extension of expert library service. The traveling library will help here and there, but the rank and file of institutions will have libraries, if at all, through modest beginnings, in unideal spaces, with part and short-time supervision by an untrained but interested employee doing other things—and they will prove in every case to be worth while and to grow.

The story of one such small-beginning and continuously inexpensive but effective library may be of value. Our first group of forty convalescents found 150 books here, on shelves made by an employee, in a room used partly for other purposes, but advertised as "library" and run with a system. A woman patient, moderately neurasthenic and needing occupation and long stay, was put in charge two hours a day as "librarian." Patients have been thus in charge regularly since. Some act as assistant librarians at times. Afternoon hours were soon added. Several patients are happily busied frequently in cleaning and repairing books, arranging, classifying, etc. Another and considerable work-cure is thus added. Nearly all convalescent conditions have been represented, but nervous and mental debilities are selected most frequently and with marked benefit.

It is considered an honorable and favored position. Book-knowledge, exceptional education, etc., have not been of first consideration, but rather gain in health for the particular patient. Persons of average good sense from the workplaces of the city have served satisfactorily. One breaks in another as successor.

There has never been question of amount of money we might spend; yet this modest way was chosen, knowing the continuing value of right balance of departments, which only time and trial can bring about, and we wished the patients (240 now, with 90 employees) to determine and form the library in the main. The patient-librarians and staff-members make notes of queries and suggestions, and lists of book-needs result. Now, after two years, there are 700 volumes, besides effective art and library table books, a few reference works, etc.

The average cost is less than 30 cents a book. All have been bought second hand at one store in

Fig. 1. The morning paper in winter sun.

the near city, which does a large catalogue business with public and other libraries in many parts of the country. Our selections have been made from its shelves by two or three interested members of our staff. The cooperative personal interest of this firm has been valuable; we are frequently informed of good lots from which to make first choice, and the firm watches to satisfy our mailed lists of desires in titles, bindings, illustrations, etc.

These books thus personally chosen are lasting well, though the service is hard (average forty books a day taken to cottages, besides staff and library reading, etc.) Patients go to the shelves and handle freely. In fact, visiting the library (a considerable outdoor walk) is valuable convalescent diversional treatment. Traveling book collections in the cottages have been thoroughly tried and given up because of ill use, misplacement, lack of appreciation, etc.

Our books are three-fourths standard modern fiction; "detective stories," etc., give special joy. Our experience is like that of others, except that these short-term, fairly ill and nerve-weak people like many volumes of short stories, and neglect even more than usual our intruded small percentage of "solid," "religious," and "cultural" reading. They read to each other, and in groups

Fig. 2. Coming back from the library.

(most wholesomely), are much out of doors, and "talk it over" abundantly. The moderate call for reading in foreign languages is being met.

Practically no books have been carried away by these eight thousand quickly passing folks of all races and kinds (unexpectedly gratifying this). Employees use the library increasingly, and some purchases are being made for their needs. New volumes of note and various kindred things are advertised on bulletin boards; this helps.

The system is the usual pasted-in book pocket and card with a small card-index by authors and

Fig. 3. They read to each other, and in groups are much outdoors.

titles, for the librarian's general use. Our branch institutions, at a distance, have each small separate libraries. The libraries are under the department of occupation and recreation.

The growing and highly appreciated little library has just moved to better quarters in one end of the assembly hall. Patients made the new cases, framed pictures, seated chairs, and generally equipped the place. Sliding doors close it off and make it variously usable without affecting

assembly hours. Folding armchairs and folding tables prove praticable. Men and women meet agreeably here for quiet acquaintance.

We think sometimes that our daily papers (morning and afternoon) are more important than the books. The institution supplies them in four languages, at average cost of $14 a month, and subscribes for a dozen magazines. Gifts of old periodicals and illustrated journals overburden us, as usual. The total cost of books is $200; about $200 is expended yearly for paper and magazines (this is because of high peculiar needs). The overhead cost is negligible. Here, then, is a young, small, but widely functioning library, costing comparatively little, paid for frankly like food or nursing or any other institution essential, allowed to grow slowly from experience as a vital part of the organization, and giving considerable occupation-therapy in addition to usual service.

Along with other beginners, we would express appreciation of the helpful pioneer work done and so well spread by Miss Edith K. Jones of Waverly, Mass.

SKIM-MILK AS FOOD

A Cheap, Nutritious, and Digestible Food too Often Relegated to the Feeding of Calves, Pigs, and Chickens

By JOHN PHILLIPS STREET, Chemist, Connecticut Agricultural Experiment Station, New Haven, Conn.

ANIMAL albumin is a most important factor in the food of man; it is generally accepted that we should take one-third of our protein requirement in this form. The chief sources of supply of animal protein are meat, eggs, milk, and the various milk products. Meat has the distinct advantage of being the only form of animal food that man can take continuously with pleasure in quantities sufficient to satisfy the body's demands for albumin. On the other hand, the consumption of a sufficient quantity of milk sooner or later causes a distaste for it with most people. A reliance on meat for our needed protein supply offers certain serious problems, namely, its expensiveness, the difficulty of excluding disease, and the alterations in flavor and digestibility shown in the various drying, pickling, and smoking processes employed.

A substitute for meat albumin in our daily ration is therefore highly desirable. Whole milk naturally suggests itself as a relatively cheap source of animal protein, but the often condemned, rarely appreciated skim-milk is even cheaper for this purpose, and in some cases is actually to be preferred. As Robert Hutchinson says, "Its great value in the dietary of persons to whom economy is of importance cannot be overestimated."

Skim-milk is the lower layer, comparatively poor in fat, which remains when the cream is removed from milk by skimming or by mechanical means. Its composition naturally is affected by the process used for its production. In the shallow-pan method the solids (mostly proteins and milk sugar) will range from 9.75 to 10.50 percent with fat from 0.5 to 1 percent; in the deep-pan method the solids from 9.5 to 10.25 percent with fat from 0.4 to 1 percent; while in the centrifugal system the solids may range from 9.25 to 10 percent with fat from 0.35 to 0.45 percent; by the modern separator the fat content may be reduced to less than 0.1 percent.

An accurate descriptive definition of skim-milk, therefore, is by no means a simple problem, and the difficulty is increased when one considers the legal significance of the term "skim-milk" in the laws of the various states. In general, a milk is considered as skim-milk if any part of the fat naturally occurring in it has been removed. In other words, a Jersey milk containing normally, say, 5 percent of fat, in which the fat for competitive reasons or otherwise has been reduced to 3.5 percent, under the laws of most of the states is just as much skim-milk as one in which the separator process has reduced the fat content to a few tenths of one percent. Obviously unfair as such a classification is, the great state of New York reaches the climax of legislative absurdity when it provides that milk from which any part of the cream has been removed is adulterated milk, and then without the slightest hesitation declares that "all adulterated milk shall be deemed unclean, unhealthy, impure, and unwholesome." In a later section of the New York law we are presented with the anomalous situation of skim-milk—that is, "adulterated" milk — being "unclean, unhealthy, impure, and unwholesome" in New York and Kings Counties (the cities of New York and Brooklyn), whereas the same product when sold in other counties (provided it is produced in said county or the adjoining county) may be "clean, pure, healthy, wholesome, and unadulterated." The Massachusetts law heads one section "Sale of Adulterated, Diseased or Skimmed Milk." The Iowa law classes together "unclean, impure, unhealthy, adulterated, unwholesome and skimmed

milk." Surely skim-milk is a pariah among food products.

The fact remains, however, that, in spite of laws and regulations, in both the official and the popular conception, skim-milk is milk from which most of its fat has been removed. It is this removal of fat, this apparent debasing of the product, that has brought upon skim-milk undeserved and unintelligent opprobrium. I wish it clearly understood that in my championship of skim-milk as a human food I want it to be sold on no other basis than on its merits. Skim-milk of course must not be sold as whole milk, or skim-milk cheese as full cream cheese, or frozen condensed skim-milk as ice cream. But here we have a valuable food product, a cheap source of animal protein in a peculiarly digestible form, a most valuable culinary adjunct, whose sale is discouraged in practically every state of the Union, whose sale is prohibited under any circumstances in the great cities of New York and Brooklyn, and whose sale when permitted is hampered by such restrictions as to discourage both the seller and the buyer of the product.

It is a truism that fat is not the only valuable, or even the most valuable, ingredient of milk. In normal milk the amount of milk-sugar exceeds the fat, and the protein is only a little lower, and in skim-milk, of course, the percentages of protein and lactose are higher than in whole milk. And yet, in spite of the presence of these valuable digestible food nutrients, the laws, the food officials, and the public banish skim-milk from the table and the kitchen to the farmyard as food for pampered calves, pigs, and chickens.

The annual output of skim-milk in this country is about 30 billion pounds, yielding 1,020 million pounds of protein, 90 million pounds of fat and 1,530 pounds of milk-sugar. It has been pointed out that in normal times in Germany 25 cents will buy 538 food units in the form of beef, 552 in poultry, 1,615 in whole milk, 2,311 in buttermilk, and 2,562 in skim-milk, and yet with us this valuable product is largely calf food, pig food, or chicken food. So great is the popular prejudice against skim-milk as human food that in many localities it can be purchased only with extreme difficulty. For instance, in a recent Canadian inspection, although the inspectors were instructed to take skim-milk wherever offered for sale, only one sample was taken in 367 collections.

Skim-milk may be offered to the consumer in various forms, as the straight product itself, as dried skim-milk, as condensed skim-milk, as skim-milk cheese, or as one of the various commercial casein preparations. Each of these is valuable in its own field. As a beverage skim-milk is not to be despised, if we can rid ourselves of our foolish prejudice against using a cheap food product, but perhaps its widest field of usefulness is for culinary purposes. In our usual mixed diet the required amount of fat is generally supplied by meat, butter, lard, vegetable oils, etc., so that the deficiency of skim-milk in fat is not of such great importance. Of all our food ingredients, protein is the most expensive and the one most generally lacking in cheap meals, and this ingredient skim-milk offers in an extremely cheap and digestible form. Furthermore, it is the common experience of workers among the poor that the greatest difficulty in the preparation of cheap dietaries is to secure foods supplying adequate amounts of lime, an especially essential constituent in the dietaries of children, and this deficiency skim-milk is admirably adapted to supply.

There are few instances in the kitchen in which skim-milk cannot be substituted for whole milk, and in certain cases the resultant product is improved by the substitution. Its use in the making of bread not only increases the nutritive value of the bread but also increases the yield of bread from a given quantity of flour. Skim-milk is useful not only in bread-making, but also in the preparation of potato, celery, tomato, pea, and corn soups; in fish, lobster, clam, and oyster chowders, bisques, and stews; in all kinds of quick biscuit, griddle cakes, cakes, etc.; in rice and Indian puddings, custards, squash and pumpkin pies, chocolate, cocoa, sherbets, ices, and in a hundred and one different ways. In the case of cake, if the skim-milk is sour, so much the better, as only half of the acid leavening agent called for in the recipe will be needed.

In the older methods of cream separation the resultant skim-milk was liable to have acquired considerable age before reaching the consumer, which perhaps explains in part its general ill repute. The use of the modern separator, however, in great measure has remedied this difficulty. It is generally held, and I believe quite properly, that skim-milk is not a desirable food for infants because of its deficiency in fat and because of its lack of freshness. While the latter objection is not so important with adults, a thorough cooking perhaps is as a rule desirable.

What is the food value of skim-milk as compared with other food products? Two and a half quarts furnish the same amount of protein and nearly the same fuel value as a pound of round steak. Expressing the relation in calories per pound, skim-milk yields 170 calories, or over half the amount supplied by whole milk; it yields about the same calories as sea bass, black fish, codfish, buttermilk, oatmeal gruel, certain fresh vegeta-

bles (such as string beans, beets, carrots and corn), oranges, strawberries, clam chowder, crabs, and tomato soup; more than twice as many calories as round clams, celery, cucumbers, lettuce, pumpkin, rhubarb, asparagus, brussels sprouts, and muskmelons; and from three to four times as many calories as oysters and bouillon. Surely such a source of nutriment is not to be despised, and the argument for its use becomes even stronger when cost is considered. At normal prices skim-milk furnishes protein more cheaply than any common animal food except salt fish; it is, however, a dearer product than most vegetable foods, but over these it has the important advantage of having no waste, of requiring little time for preparation, and of being more digestible.

A comparison made in a Farmers' Bulletin of the U. S. Dept. of Agriculture between a lunch composed of bread and skim-milk and an ordinary restaurant lunch, shows well the nutritive and economic value of this product. Eight ounces of bread and one pint of skim-milk yields 859 calories with .09 pound of protein for 5 cents, while a lunch of 8 ounces of soup, 2 ounces of beef, 2 ounces of potatoes, 1 ounce of turnips, 3 ounces of bread, ½ ounce of butter and 1½ ounces of coffee with milk and sugar yields about the same number of calories, 865, with 1/20 pound of protein, for from 15 to 20 cents. In other words, a simple bread and skim-milk lunch yields about one-third the required daily nutriment at a cost of only 5 cents. In the penny luncheons supplied to Boston school children a very successful combination was skim-milk, bread and butter. The value of skim-milk in dietaries for large numbers of people, as in public institutions, is evidently great.

The second form in which skim-milk may be used is in the form of milk powders. These milk powders, of course, may represent milk of different degrees of skimming. A typical partially skimmed milk powder shows water 5, fat 16, protein 34, ash 7, and lactose 38 percent, yielding 1,957 calories a pound. Skim-milk powders, on the other hand, show water 3 to 14, fat 1 to 3.5, protein 29 to 36, ash 7 to 8, and lactose 44.5 to 55 percent. A typical American skim-milk powder, Klim, analyzed by myself, showed water 2.6, fat 2.2, protein 37.1, ash 8.1, and lactose 50 percent, yielding 1,669 calories a pound, at a cost of 25 cents. Aside from the convenience in use of these powders in the home or in the camp, their keeping qualities and freedom from bacterial contamination still further emphasize their usefulness as food products.

Skim-milk cheese is another form in which skim-milk may come into popular use. In the past there were doubtless grave abuses in the sale of skimmed or partially skimmed milk cheese as full milk cheese. This form of commercial dishonesty, however, should not cause us to lose sight of the great nutrient value of cheese of this sort. As a matter of fact, in the manufacture of certain varieties of cheese the use of skimmed or partially skimmed milk is necessary to secure a cheese of high quality. In the manufacture of American Swiss cheese, for instance, it is often impossible to use whole milk and obtain a product that can compete in quality with the imported product. Such varieties as Backstein, Brie, camembert, Cottage, Edam, Gouda, Limburg, Issigny, Neufchatel, Parmesan, sap sago, and Swiss are commonly, if not always, made of skimmed or partially skimmed milk.

Condensed skim-milk is still another commercial form in which this food may be purchased. In some states its sale is prohibited altogether; in others a label is required stating that it is not intended for infants' use, but in most of these states it may be sold under its true name. There is no reason why this product should not find a wide use in the home and in institutions. Certainly it has a valuable part to play in the feeding of our people, and restrictions as to its sale should not be so prohibitive as to drive it from the retail market and limit its sale almost entirely to confectioners, bakers, and ice-cream manufacturers, as is the case at present. The accompanying analyses made in my laboratory during the past year illustrates the composition of the sweetened product.

ANALYSES OF COMMERCIAL BRANDS OF SWEETENED CONDENSED SKIM-MILK

	Water	Protein	Ash	Fat	Sucrose	Lactose	Calories per lb.
Target Brand	26.32	8.74	1.90	1.04	38.63	23.37	1310
Van Tromp Brand	29.80	9.57	2.19	0.61	37.83	20.00	1238
Marvel Brand	28.60	8.29	1.86	0.67	48.22	12.36	1266
Hires' Square Brand	28.34	8.36	1.71	0.86	47.45	13.28	1277

The fourth class of skim-milk preparations to which attention should be called consists of the casein products. These are not only fat-free, but lactose-free as well, and have already been discussed by me in an earlier paper.[1] The requirements of a proper substitute for meat albumin in our daily ration are that it must be relatively cheap; it must be tasteless, inodorous, and, for most purposes of the character of a flour, free from micro-organisms; it must be capable of keeping for reasonable lengths of time without undergoing decomposition; and, finally, it must be suitable to and assimilable by the organism when taken in considerable amount. Casein preparations seem to meet many of these require-

[1] Condensed Milk and Casein Preparations, THE MODERN HOSPITAL, November, 1915, p. 333.

ments. Accordingly we find on the market such preparations as Plasmon, Sanatogen, Casoid Flour, Nutrium, Galactogen, Lactrine, and other products of this nature. The great difficulty with most of these is their expensiveness. Some of them are advertised in regular "patent medicine" style, with the usual extravagant claims as to their curative and reconstructive powers. The user of these preparations should remember that whatever virtues they possess from the standpoint of nutriment lies in the casein they contain, and the mere calling of casein by a fancy name and charging from forty to fifty times the price for which commercial casein may be purchased by no means warrants the testimonials which apparently flow so easily from the pens of novelists, poets, journalists, statesmen, and other persons of similarly high scientific authority.

STANDARDIZATION OF HOSPITALS—INTRODUCTION AND CLASSIFICATION[1]

Items That Enter Into the Problem—Financial Support, Architecture, Equipment, Organization, and Administration—Pathology and Asepsis—Roentgenology—Nursing—Dietetics—Accounting and Records—Out-Patient Work

By JOHN ALLAN HORNSBY, M. D., Chicago, With the Collaboration of Various Expert Specialists

THERE are three reasons for the standardization of hospitals: (1) to enable trustees, medical staffs, and administrators to compare the work and methods in their own hospitals with what other hospitals are doing; (2) to enable donors and supporters of hospitals to judge of the efficiency and usefulness of the institutions in which they are interested; (3) to enable the public to judge of the efficiency of the service in any hospital in order that they may know whether to patronize it or not and whether they and their friends may have the right to expect competent care when they are sick.

The importance of standardization may be judged by the immense amount of work that has been given to it over a long period of years, and the difficulties surrounding the problem are to be judged by the comparative ineffectiveness of the work down to this time.

At its Atlantic City meeting in June, 1912, the Hospital Section of the American Medical Association appointed a committee to study the problem; in August of that same year the American Hospital Association appointed a similar committee for the same purpose, and, in order that the full effect of the resources of those two associations might be brought to bear for the benefit of this work, the same members were appointed for both committees, Dr. Henry M. Hurd being chairman of the committee of the Hospital Section of the American Medical Association, with Dr. F. A. Washburn and Dr. John A. Hornsby as the other members; Dr. Hornsby was made chairman of the committee of the American Hospital Association with Drs. Hurd and Washburn the other two members. In the spring of 1913 the Clinical Congress of Surgeons of North America appointed a large committee for the same purpose, Dr. E. C. Codman of Boston being chairman.

These three committees have reported progress to their various associations annually since that time, but in fact all three committees have been marking time, as it were, because there seemed to exist insuperable obstacles to any attempt to approach the problem in detail.

Two years ago the Public Health Service of the government was petitioned to undertake an investigation of the hospitals for purposes of standardization, but the Federal Government and Congress felt that this was a work for private enterprise and declined to undertake it.

The Carnegie and Rockefeller Foundations have been asked to provide the funds and undertake the work, and it seemed at one time that the Carnegie Foundation was on the point of appropriating funds for the purpose, but something interfered.

In the meantime, the Council on Medical Education of the American Medical Association determined that a classification of the hospitals was necessary in order that medical schools and newly graduated physicians might have data on which to frame a judgment as to those hospitals competent to give interns an efficient postgraduate training; committees were appointed in each state with a view to attempt to make some investigation in the hospitals of the respective states; and the secretary of the Council on Medical Education has reported annually a list of the hospitals adjudged competent to give an efficient intern training. These lists, however, were made up from data so incomplete, necessarily, that they have not served any very good purpose, but this activity on the whole has brought some results as the other activities have also brought some.

At the September (1916) meeting of the American Hospital Association at Philadelphia, Dr.

[1] This is the first in a series of papers dealing with the items in standardization; next month will be taken up "University or Teaching Hospitals" and what may reasonably be expected of them. Names of collaborators will be published next month.

John G. Bowman, director of the American College of Surgeons, read a paper introducing this problem and stating that the American College now had a fund available for the purpose of making some concerted and definite attempt to secure some hospital standards; a committee of the association was appointed at the instance of Dr. Bowman to collaborate in this proposed study, and Dr. Winford Smith, at the time president of the association, was made chairman.

Rev. Father Charles B. Moulinier, S. J., president of the Catholic Hospital Association, has announced that at the coming convention of that association set for June, the three days' convention is to be given over to a discussion of the problem of standardization in symposium form, and it is announced that Dr. John G. Bowman, director of the American College of Surgeons, is to state the problem for discussion.

This brings us to the present moment, when it seems likely that a constructive system of standardization is to be attempted if not achieved.

It is the purpose of this series of papers, not to settle anything concerning standardization, but to discuss the problem in the hope that a sufficient number of thinking people interested in hospital work will participate to have great weight in any final settlement that may come.

I have given a good deal of thought to this subject, and I am venturing to present a tentative classification of American hospitals for standardization purposes. This classification is no doubt faulty and will not be that eventually settled on, but it has the merit of being at least a text to be studied, a framework on which a permanent structure may be molded.

CLASSIFICATION OF HOSPITALS FOR PURPOSES OF STANDARDIZATION

GENERAL HOSPITALS

Class I.—University or school hospitals—all sizes.
Class II.—Semipublic hospitals, large, 250 beds and over.
Class III.—Semipublic hospitals, medium-sized, 100 to 250 beds.
Class IV.—Semipublic hospitals, small, 50 to 100 beds.
Class V.—Semipublic community hospitals, small, 5 to 50 beds.
Class VI.—Public municipal hospitals, large.
Class VII.—Public municipal hospitals, small.
Class VIII.—Private general hospitals, small.
Class IX.—Private general sanatoriums.
Class X.—Industrial hospitals.

SPECIAL HOSPITALS

Class XI.—Public tuberculosis hospitals, large.
Class XII.—Public tuberculosis hospitals, small, 50 beds and less.
Class XIII.—Private tuberculosis sanatoriums.
Class XIV.—State hospitals for the insane and epileptics.
Class XV.—Private sanatoriums for mental and nervous diseases.
Class XVI.—Private sanatoriums for patients addicted to alcohol and narcotics.
Class XVII.—Infectious disease hospitals.
Class XVIII.—Maternity hospitals, large.
Class XIX.—Maternity hospitals, small.
Class XX.—Children's hospitals, large.
Class XXI.—Children's hospitals, small.
Class XXII.—Creches and day nurseries.
Class XXIII.—Convalescent homes and homes for incurables.
Class XXIV.—County farms and poorhouses.
Class XXV.—Skin and cancer hospitals.
Class XXVI.—Venereal hospitals.
Class XXVII.—Old people's homes.
Class XXVIII.—Homes for the blind, deaf and dumb.
Class XXIX.—Homes for orphans.
Class XXX.—Homes for defectives and incorrigibles.

In any study of standardization, many items must be considered: the financing of the hospital, indicating the permanence and substantial character of its support; the architecture of the hospital building; its equipment; the organization of its medical and of its administrative forces; and, finally, the competence of the various departments of the hospital to meet the demand of modern medicine in the care of the sick: the departments of pathology, roentgenology, nursing, dietetics, record-keeping and accounting; and we have now come upon a time when it becomes necessary that every hospital of every kind shall do certain out-patient, dispensary and follow-up work—so that this item also must be considered.

In order to make these papers as helpful as possible, I have invited the collaboration of a number of experts in the various directions of hospital work to participate with me in their preparation; the list of participants will be published later. It is the purpose to take up the hospitals under the foregoing classification and to summarize in as great detail as possible what we may have a right to expect in each class of hospitals under the various above-named items.

It is recognized that so large a number of classes of hospitals is unwieldy, but it is certainly impossible that we shall have a right to exact of a small hospital all elaborations of architecture, equipment, and service that we may hope for in large, metropolitan, richly endowed institutions; and we may not exact of a special hospital the completeness for diversified service that we may look for in a general hospital treating a great variety of diseases, under many different conditions.

The idea is to put every hospital in this country under one or the other of the above-mentioned classes, and to recite in this series of papers just what each of these classes of hospitals should have and do and be in order to meet the reason-

able demands of modern medicine for the care of the sick. It is proposed to number these classes of hospitals numerically. The hospitals themselves are intended to be marked A, B, or C, in accordance with the nearness of their approach to the ideal in the respective classes. Eventually, it may be considered even best to make points from 0 to 100 and to give a certain percentage value to each item in efficiency and to take away a certain percentage for deficiency in any of the items: for instance, the item "pathology" would be given a certain percentage of the total, and each of the other items would be given its percentage, so that in the final report on any hospital the investigator would not have a free hand in marking hospitals, but would be guided by restriction carefully detailed. In this way an investigator could be sent into each state or into each platted district in the expectation that results of their investigation would be comparable.

In the investigation reported upon the medical schools some years ago, the Rockefeller Foundation entrusted the work to one individual, and the markings thereby had a comparative value; but there are two hundred medical schools and some eight thousand hospitals, so that the individual judgment will be manifestly impossible in the case of hospitals.

In our paper next month we shall venture boldly upon a consideration of the first class of hospitals, namely, university or teaching hospitals.

ARCHITECTURE AND EQUIPMENT OF THE JORDAN HOSPITAL, PLYMOUTH, MASS.

Exceptionally Elaborate for a Small Hospital, This Institution Has Been Built and Equipped in Keeping With Demands in Far Larger and Costlier Plants

By CHARLES G. MIXTER, M. D., Surgeon, and HAROLD FIELD KELLOGG, Architect, Boston, Mass.

THE designing of a hospital of modest size for a small city or town is, in its way, as interesting as the planning of a large institution. The number of diseases rather than the number of patients determines the plan. Although medical and surgical patients may be admitted into the same ward, special buildings must be provided for contagious diseases. To keep the different communicable diseases apart, and yet to reduce the nursing force to a minimum for small hospitals, requires special planning. If a contagious ward is adequately isolated by fresh air and certain precautions are taken in the service, there is no reason why any general hospital should not include one or more contagious buildings. The administration of more than one building is necessarily that of an institution on a small scale. The matter of resident or visiting physicians depends largely on the local conditions. The arrangement of beds into wards and private rooms should be determined by the proportion of charity and paying patients to be admitted. The relative importance of the surgical branch should be considered and a space set aside for a suite of rooms absolutely independent from the rest of the hospital, so arranged that they are a unit within themselves. The kitchen should be so located that it will be not only central, but will facilitate a constant checking service by the superintendent or matron. The laundry is better at a distance, as well as the heating plant. With these points in mind, the group plan of the Jordan Hospital at Plymouth was laid out.

GENERAL PLAN

The future development and the existing buildings are shown on the group plan. The present contagious ward will be moved to its future location when the medical ward is built. The corridor connections will be continued to the new buildings. The present heating plant, laundry, and kitchen have been made adequate for the future.

INDIVIDUAL BUILDINGS

1. *Administration Building.*—The original Jordan Hospital has been altered into an administration building. In the basement are the general kitchens, which serve the whole group through covered passages. The ice boxes, general stores, and employees' dining room is also here. On the first floor are the offices, nurses' dining room, serving pantry, and sitting room. The second floor is given over to nurses and the third floor to the employees' bed rooms.

2. *Surgical Building.*—The surgical ward now used for medical and surgical cases has its long axis approximately north and south. In the basement are storage rooms, laboratory, dispensary, employees' toilets, elevator machinery, etc. On the first floor is the office of the "charge nurse," the waiting room, and a scrub-up room for visiting doctors, all near the front door. There are also seven private rooms, three semiprivate (or 2-bed) wards and two 3-bed wards. The private and semiprivate wards have closets. There are separate toilets for men and women, with a single bath. The diet kitchen is served by a hydraulic

lift. There are a linen closet, a medicine closet, and a utensil room. The electric elevator is in the center of the building opposite the main entrance. The second floor is, in the main, a duplicate of the first, except that the northern end is given over to the surgical suite—a group of seven rooms about an octagonal foyer, the eighth side being the entrance to the octagon. The third floor is unfinished, but so designed as to make rooms for nurses, or even patients if desired.

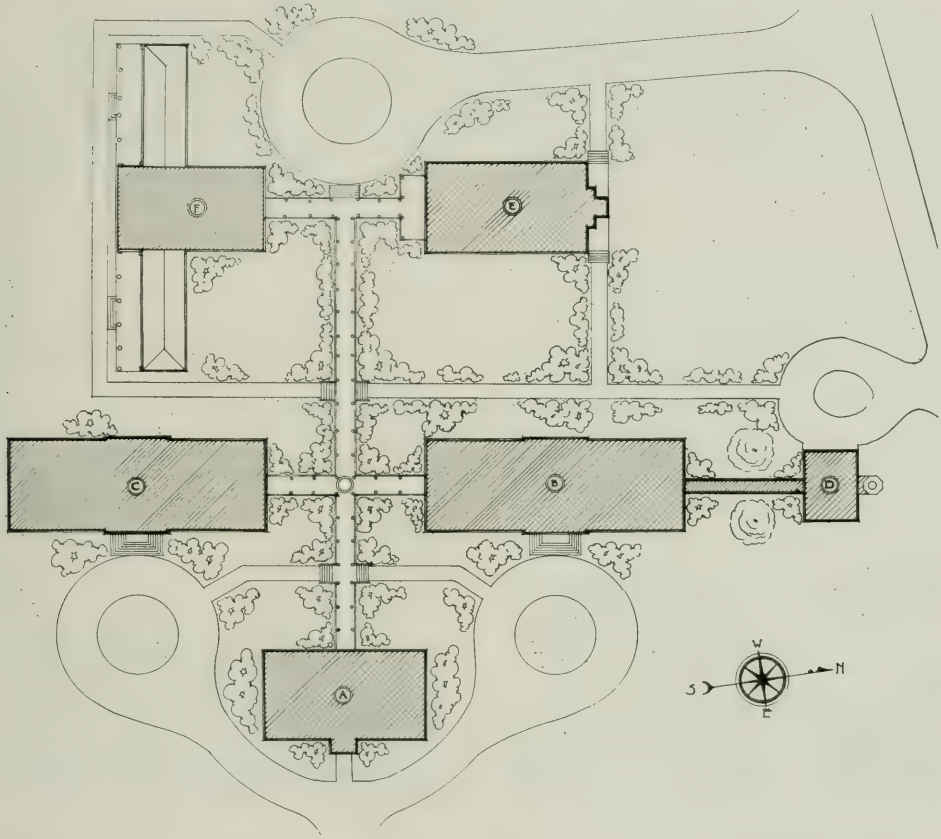


Fig. 1. Jordan Hospital. Ground plan.

A. Administration building.
B. Surgical ward.
C. Future medical ward.
D. Power house.
E. Contagious ward.
F. Future tuberculosis ward.

3. *Medical Building.*—The medical ward (not yet built) will be similar in general design to the surgical ward, except that, of course, the operating suite will be omitted. The foundations of the contagious building, which now stands on the site of the future medical ward, were made sufficiently heavy to support a brick building.

4. *Contagious Building.*—The contagious ward is only about two-thirds the length of the future medical building, but the same width. It is but one story high and of wood construction, to facilitate moving to its final location shown on the group plan. This building contains three separate hospitals—that is to say, three complete nursing units for three conmmunicable diseases, with no connection between them. Each has its own toilet facilities, diet kitchen, linen closet, sterilizer, etc. The basement contains two scrub-up and locker rooms, connected by two staircases with the large wards above. The third division is a private room for questionable cases under observation. Even this, however, has its own diet kitchen, toilet, sterilizer, and linen closet, and is not in any way connected with the rest of the building.

On each side of the building is a 7-bed ward, two private rooms, toilets, a diet kitchen, a linen closet, a utensil room, etc., and both sides are

Fig. 2. Jordan Hospital. General view.

similar. In the rear is a discharging room, with a tub in the center. This room may be entered only from the open air, and may be used by any disease, as it is fumigated each time it is used.

5. *Tuberculosis Building.*—The tuberculosis ward is to be located at a distance, but connected by the corridor. On account of the sun treatment, this ward runs east and west, giving the maximum southern exposure. The plans now show two male and female wards of ten beds each, with four private rooms, a common dining room, a linen and utensil room, a diet kitchen, office, pantry, and two locker and toilet rooms. There are covered porches along the south side of the large wards. These porches have flat roofs, the windows of the wards above insuring ample sun in the rooms.

Fig. 3. Jordan Hospital. A connecting corridor.

6. *Laundry Building.*—The laundry and boiler house is to the north of the group, as the prevailing wind is southerly. The first floor of this building is the laundry, which is at the lower level of the corridor, here out of ground. The basement of this building is the heating plant, but it is in no way connected with the laundry. A 60-foot stack gives ample draft for the high- and low-pressure boilers.

The corridors which connect all these buildings, with the exception of the section between the surgical ward and the laundry, are three stories high. The basement is lighted by windows, the first floor is a colonnade, and the second floor level is merely an open porch with balustrade. This top level serves not only as connection between buildings, but also as a porch where patients may be left for sun baths.

Fig. 4. Jordan Hospital. Surgical building.

HEATING AND VENTILATING

With the exception of the operating rooms, the heating of all the rooms is the "direct-indirect." This form of heating is accomplished with the minimum cost both of installation and operation, as well as being the cleanest type for hospitals. The fresh air is admitted through a wall box placed under the window and behind the radiators. This arrangement is well known, but the type of mixing chamber built about the radiator has certain unique features. Its general form is

shown in Fig. 8, and the position of the front when open is shown by dotted lines. This design facilitates cleaning the radiator, wall box, and the mixing chamber itself. All the radiators in the buildings are legless and all the pipes come from the walls. The heating is carried out on a Webster modulating system, with a gravity return. Even

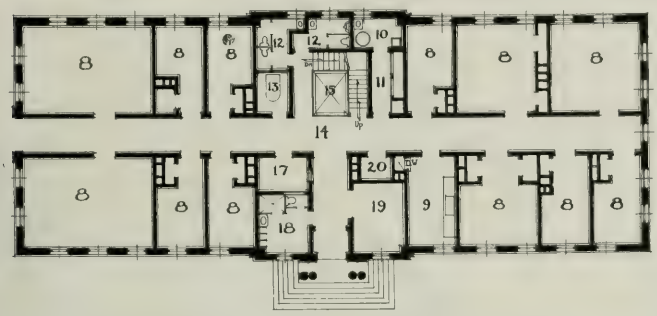


Fig. 5. Jordan Hospital. Surgical building. First floor plan.

8. Wards.
9. Diet kitchen.
10. Utensil kitchen.
11. Linen closet.
12. Toilet.
13. Bath.
14. Corridor.
15. Elevator.
17. Nurses' office.
18. Visiting doctors' room.
19. Waiting room.
20. Store closet.

in the coldest days this whole plant runs on one or two pounds pressure.

The operating rooms are heated by an indirect system. The fresh air is taken in at the basement, filtered through cotton gauze, heated, mixed to a desired temperature with fresh filtered air, and raised by gravity to the operating rooms. The mixing damper is controlled from the rooms themselves, and the air is admitted through a register about 7 feet from the floor. This grill is of plain bars, which can be wiped down with a cloth. There is a steam coil between the inner and outer glass of the operating room windows, which also warms the room and keeps the chill from a large glass surface from reaching the patient.

The ventilation of the buildings is by gravity, except for the operating and etherizing rooms. Vents run from all the other rooms at the floor level, and, joining together just under the roof, pass over a radiator, which creates a draft. This draft is so strong that a small pocket handkerchief may be drawn up the vent. The operating rooms and etherizing rooms are ventilated not only by gravity, but by an electric exhaust fan as well. This is arranged as an auxiliary to the gravity system to remove the ether, which is heavier than air. Both operating rooms have a vent at the floor for the bad air and ether, and another at the ceiling for the hot air. A damper controls the amount of exhaust from both by gravity or by the fan.

PLUMBING

There are many unique features about the plumbing of this hospital. The sterilizing slop sink (Fig. 9) consists of a copper cone surrounded by a steam jacket. It is operated entirely without the use of the hands as follows: the nurse, with perhaps a typhoid bed-pan in her hands, opens the cover by a hydraulic foot lift at *a*, places the pan and contents in the machine upside down; by an elbow action valve at *b* she fills the copper cone half full of water; fills the jacket with steam by a knee valve at *c* and lets the whole boil as long as necessary; with her foot she opens the waste to the sewer at *d*, and, holding the cover open with one foot on the pedal, she washes the bed-pan with a hot and cold spray at *e*, controlled by the other foot. There are two of these in the contagious buildings, and one each in the first and second story utensil rooms of the large ward. The other slop sinks are supplied with elbow action, hot and cold water, and a knee action rim flush.

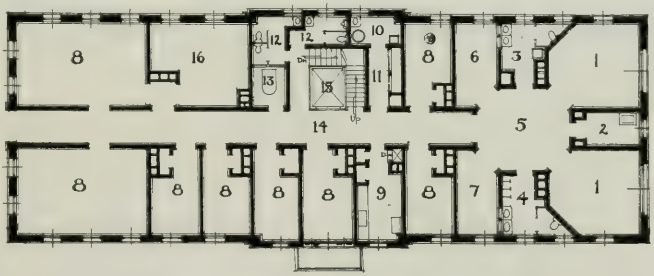


Fig. 6. Jordan Hospital. Surgical building. Second floor plan.

1. Operating room.
2. Sterilizing room.
3. Nurses' "scrub-up."
4. Doctors' "scrub-up."
5. Foyer.
6. Etherizing room.
7. Recovery room.
8. Wards.
9. Diet kitchen.
10. Utensil kitchen.
11. Linen closet.
12. Toilet.
13. Bath.
14. Corridor.
15. Elevator.
16. Nursery.

The nurses' and doctors' scrub-up sinks (Fig. 10) are supplied with hot and cold water by a single spout projecting from the wall, one thigh action lever controlling the water and another delivering liquid soap out of the same spout. All the mechanism, which really is very simple, is built in the wall as well as the soap tank, which is filled from the next room. The nurses' and doctors'

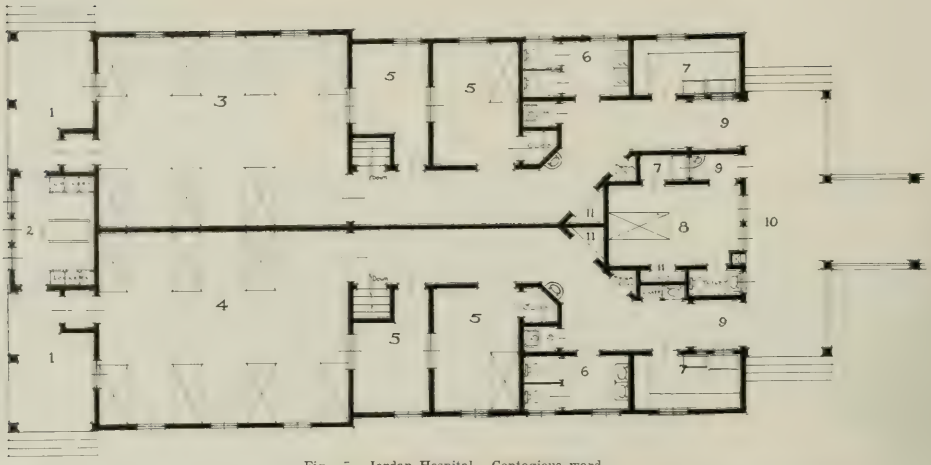


Fig. 7. Jordan Hospital. Contagious ward.

1. Piazza.
2. Discharging room.
3. Scarlet fever ward.
4. Diphtheria ward.
5. Private ward.
6. Toilet.
7. Diet kitchen.
8. Questionable cases.
9. Vestibule.
10. Covered piazza.
11. Linen closet.

wash-up rooms are each fitted with two of these, and there is one in the sterilizing room.

The water closets are operated by the patients leaning back against a button in the middle of the tank. The urinals are automatic and are set to operate at a given number of times per hour. The

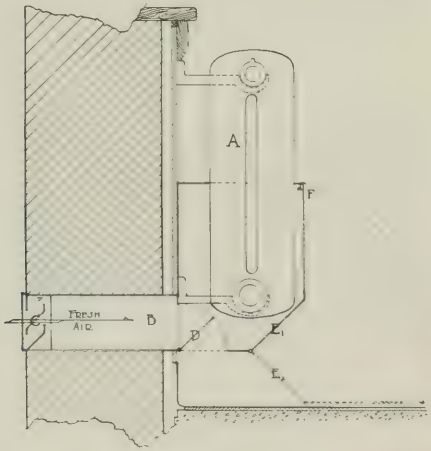


Fig. 8. Jordan Hospital. Direct-indirect radiator.

A. Radiator.
B. Fresh air intake.
C. Exterior wall box.
D. Mixing damper.
E 1. Face of mixing chamber.
E 2. Same opened.
F. Catch.

sinks in the medicine closets are vitreous china slabs hung on brackets. In one end of the slab is a small hemispherical depression for the washing of bottles under a single hot and cold faucet which projects from the wall.

Another unique feature is a shower bath for each of the operating room skylights, which keeps the glass clean and cools it in summer. These showers consist of perforated pipes above the skylights controlled by valves in the sterilizing room, and are made with a draw-off for winter.

The sterilizers are all high-pressure machines, supplied by a special boiler which runs the year around. The cover of each utensil sterilizer operates by the foot, and the basket containing the utensils, dishes, etc., rises automatically from the water by a hydraulic lift. The sterilizing room in the operating suite contains a dressing, utensil, instrument, and glove sterilizer, besides the hot and cold water still.

ELECTRIC LIGHTING

All the wards are lighted by indirect electric fixtures consisting of an inverted green shade, with sheet of clear glass to keep out the dust. Each fixture has three circuits—one for the evening, one of about 4-candle-power for a night light, and one for an extension cord for table light or thermopad.

The corridor fixtures (Fig. 12) are on two circuits—one direct light, and the other indirect, as a night light, which shines only on the ceiling from inside a metal dish.

The operating rooms at night are lighted by indirect light, and there is no fixture in the room. This avoids the dirt and heat of the ordinary fixtures and gives a light without any shadow. The arrangement of lights and mirrors is shown in Fig. 13. Although there is one mirror-lighted

operating room in Germany, there are no others in this country. The principle of this means of lighting is to make the ceiling and all the wall equally bright, thus neutralizing any shadow. To accomplish this, two 1,500-candle-power nitrogen lights are so placed that their light is reflected by seven mirrors from a small room between the two operating rooms through windows about 12

Fig. 9. Jordan Hospital. Sterilizing slop sink.

feet from the floor. The two mirrors which reflect upon the ceiling are nickeled steel, as glass would break so near the heat of the lamps. The semi-domical ceiling was designed to center the light rays not only from the north window by day, but also the electric light at night. Above a 6-foot dark-green dado the walls and ceilings of the operating rooms are white enamel. In Fig. 14 the letter A represents the lights, B the two steel mirrors, and C the five glass mirrors. It will be seen how every corner, as well as the ceiling of the room, is covered by a mirror. This lighting device is controlled from the room itself, and burns about as much electricity as ten common lights.

SILENT CALL SYSTEM

The nurses' silent call system is here installed, and each bed is fitted with a cord. When the patient presses the button, it starts a light over the bed, over the ward door, and in the first and second floor annunciator. The private rooms do not have lights over the beds, as there is but one patient to call. The only way to release all these lights is for the nurse to press a button at the head of the bed.

TELEPHONES

All the floors of each building have intercommunicating telephones, and there is a telephone in each of the three units of the contagious building. These are necessary to call for supplies without the contagious nurse leaving the ward.

INCINERATOR

There are two gas wall type incinerators—one in the surgical octagon and one in the basement.

SERVICE

The service of a hospital may be grouped into three headings—nursing, kitchen, and laundry service. Of the first there is little to say, except that one nurse may be on duty in the contagious ward for all the diseases if she takes proper precautions in going from one ward to another. Each time she goes out of a disease she washes her hands and face, and changes her outer gown. The only way to get from one ward to another is out of doors or through the basement, where the scrub-up rooms are. A unique point at this hospital in the kitchen service is an exterior dumb-

Fig. 10. Jordan Hospital. Doctors' and nurses' scrub sinks.

waiter in the contagious building. From this the food is taken to one of the three contagious ward vestibules and passed through a window into the diet kitchen. Under each of these windows is a sterilizer in the kitchen, but a person standing in the clean vestibule may get anything out of the sterilizer without coming into the infected part of the ward. From this uninfected vestibule the ice is also put into the boxes through the window. All the food of this institution is prepared in the central kitchen, and carried through the covered basement passages to the hydraulic dumbwaiters or in food trucks to the diet kitchens by elevator.

The laundry service is interesting in the handling of infected linen. Soiled clothes are put in a chute in the various contagious wards and falls

into canvas bags in the basement. These bags are tied up and carried to the laundry by an employee wearing cotton gloves. Here the linen, bag, and white gloves are placed in a two-door washer, which is built in a partition. After washing, the linen is removed on the uninfected side of the partition. All the soiled linen of the hospital is collected in bags, but only the infected wash is sorted within the contagious inclosure of

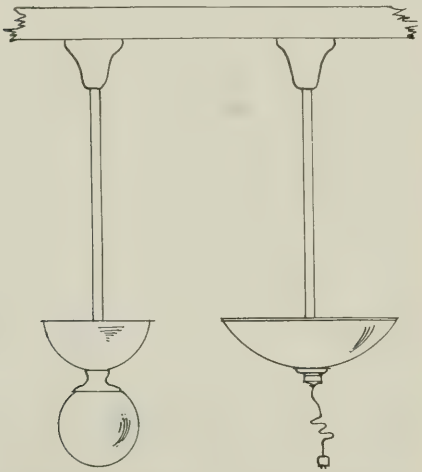


Fig. 11. Corridor fixture.

Fig. 12. Ward fixture.

the laundry. There is a central linen room in the administration building, from which the linen is distributed to the various ward closets. Each of the three units of the contagious building has its own linen closet.

The wing of the hospital that holds greatest interest for the surgeon is naturally the operating suite, and the surgeon feels that here certain requirements must be met to insure the greatest efficiency. Space should be economized without crowding, lighting and ventilation should be designed to meet varying conditions, and adequate precautions should be taken to prevent infection from dust-laden drafts and unnecessary exposure of the sterilized instruments and dry goods.

To provide accessibility, the operating wing of the Jordan Hospital was designed around a central octagonal foyer. The two operating rooms, with the sterilizing room between, occupy the northerly exposure. Next to the operating rooms, on either side of the foyer, come the scrub-up rooms for the doctors and for nurses. The etherizing and recovery rooms are placed next, with the entrance from the main portion of the hospital between them and opposite the sterilizing room. The entrance is conveniently close to the elevator and double swing doors prevent drafts and sounds penetrating to this wing.

In the hospital for a small community and for small private hospitals the single operating room is sufficient, but where it may be expected that on frequent occasions a number of operations will have to be done in one morning, it is essential, for the convenience of the surgeons and nursing staff, that two operating rooms should be arranged for. In this way much time may be saved, and hurry in the preparation of the operating room, with consequent danger of subsequent infection to the patient, may be obviated.

At the Jordan Hospital the two operating rooms are of equal size and are similarly arranged. Purposely they are of relatively small dimensions, 15 feet 9 inches by 16 feet 2 inches, as the small room can be kept more clean than the large room

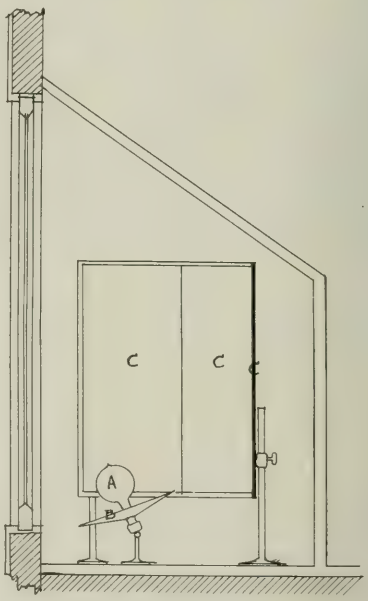


Fig. 13. Jordan Hospital. Section of operating room lights.

and the temperature can be better regulated. These dimensions give plenty of space for the necessary operating room furniture, with ample passageway around the table for assistants and nurses. Excellent lighting of the field of operation is attained by a large window occupying the whole northerly side of the room and continued half way across the ceiling. The remaining portion of the ceiling is dome-shaped, and so constructed as to reflect the light entering from this window downward onto the operating table. To prevent

dazzling and inability to focus by contraction of the pupil of the operator's eye, the walls are painted dark-green from the floor upward to a distance of 6 feet. This will be supplemented by the use of dark-gray or black operating sheets. The depths of even very deep wounds are brought out with amazing distinctness, and the eyes of the operator are much less fatigued after a long morning's work.

The different units of this wing are all placed on the same floor, which is preferable to having the sterilizing plant on the floor above or below. There is less likelihood of a break in asepsis by a short trip by one nurse from the sterilizing room to the operating room than where the instruments are placed by one nurse in an elevator, that may be insufficiently protected or improperly cleaned, and then carried by another nurse to the operating room. The fewer pairs of hands and the less the handling of sterile articles, the more perfect will

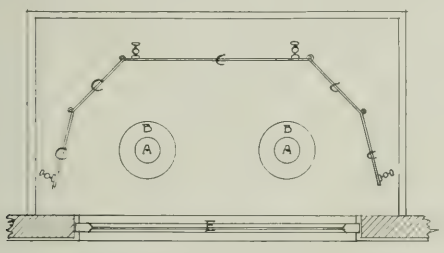


Fig. 14. Jordan Hospital. Plan of operating room lights.

be the asepsis. The situation of the sterilizing room between the two operating rooms reduces the distance to be covered and the handling to a minimum.

The etherizing and recovery rooms, though not absolutely essential, add greatly to the comfort of the patients. In a charitable hospital with open wards a recovery room should be provided where possible, as the vomiting and distress incident to the recovery from ether is very distressing to the other inmates of the ward. The etherizing room eliminates the mental shock occasioned by the sight of the prepared operating room to the nervous, high-strung patient. These rooms are larger than would be necessary where space had to be economized, but the greater room adds to the convenience of the anesthetist and especially to the nurses in the recovery room. Patients may be prepared in the etherizing room after anesthesia is induced, and carried on the truck to the operating room, a very short distance across the central hall, with a sterile sheet covering the field of operation, or they may be prepared on the operating table.

Training Nurses in China

The nursing profession is comparatively new in China, writes Eva A. Gregg in the *American Journal of Nursing*. Girls of the better-educated class are just beginning to want to take the training. Seven entered the Tientsin Training School for Nurses when it was opened in April, 1915, and all have persevered in spite of the facts that they had had at the outset very little idea of the nature of the work and were surprised that it included duties on which they had been accustomed to look down. American training-school methods are followed as closely as possible, and the nurses wear regular uniforms. Since white is the color for Chinese mourning, however, a white cap would have the same associations to a Chinese as a crepe bonnet to a Westerner. The nurses therefore wear pale blue caps trimmed with white.

"One day early last spring," says Miss Gregg, the pastor's wife came to me and inquired about one of the nurses. She was a very good nurse and I did not hesitate to recommend her in very glowing terms. A few weeks later I learned that this girl was engaged to the president of the Young Men's Christian Association and when I asked Mrs. Liu about it she said: 'O, yes, we were looking for a wife for Mr. W. and thought Miss C. would make a good mother for his motherless children; and your recommendations just settled the matter. Don't you remember you said she had a very good disposition and was such a fine worker?' Alas! I remembered it all too well. We gave Miss C. a wedding feast at the hospital, after which she left for Wesley Church, where the marriage was to take place, in an automobile accompanied by two of her sister nurses who acted as bridesmaids. She was followed by the good wishes of her many friends expressed in a thoroughly Chinese fashion by the booming of firecrackers. The next time anyone comes along inquiring about my nurses I know I shall feel tempted to say that they are homely as mud fences and have bad tempers. It is my aim to run a nurses' training school and not a matrimonial bureau."

Not merely in some far-off divine event, which shall gloriously consummate and fulfill the hopes of today, but all along the road, in the details of meeting, serving, directing our patients, in the very process itself, and not only in its results, we must find our happiness. Why must we? Because the man that doesn't enjoy his job never does it well, and because, if you do enjoy it, you will make others happy. If it is only the fully achieved result that you enjoy, you will be glum or grim most of the time, for results are rare and uncertain things, and the "best laid plans of mice and men gang aft agley." One ought to enjoy the motion of walking down a corridor, the actual questions and answers by which we get at our patient's needs, the simple technic of accurately reading a thermometer and neatly recording the result on a chart. One ought to get pleasure out of the eyes and faces, the gestures and tones, of our patients and our fellow-workers, the rich roll of the Scotchman's brogue, the musical undulations of the Englishman's voice, and the quick, sympathetic flash of the Italian's eye. How stupid, how purblind, to front all these guests with the same stereotyped kindness, the same military precision, or, worst of all, the same dull inattention! Let us be in it! Let us catch the vital impulse of happiness that there is in sight, sound, and touch, in the infinite novelty and unexpectedness of the foreground.—Richard C. Cabot, "Social Service and the Art of Healing."

COOPERATION BETWEEN EMPLOYER AND EMPLOYEE IN WELFARE WORK

The New York Edison Company Has Adopted Measures to Insure the Safety and Promote the Happiness of Its Employees—Special Rules Followed to Avoid Accidents From Electrical Currents—Technical Instruction, Savings, and Recreation Receive Attention

THE New York Edison Company has long taken exceptional measures to insure the safety and promote the happiness of its employees. This welfare work expresses itself largely in the hearty cooperation existing between the company and the association of employees, the latter being a factor by which a great part of the affairs relating to the employees is conducted. This association maintains a commodious club house, with facilities for social intercourse and indoor games, and has a library. Outdoor sports are provided for by an athletic field within the city. The association also conducts a school in technical and accounting courses, which has resulted in many promotions for those who attended. Of material benefit are the insurance features, whereby members are enabled to secure protection at most advantageous rates. Mention should not be omitted of the savings and loan association, by which employees are enabled to save systematically.

Always liberal in the matter of protecting the interests of sick or disabled employees, the company compensation methods antedate the recently enacted legislation, which in New York state makes this form of insurance compulsory. Injured employees are and have been carried on full time for the entire period of disability, notwithstanding the law makes provision for only partial payment, and then not until a certain number of days have elapsed.

The provision for the safety of employees is the result of years of experiment and effort. At the generating stations the protective sheathing of dangerous parts is so complete that it is impossible for an accident to take place. Each of the high-tension switches which control the generators is installed in a separate compartment, is carefully numbered, and the operator working in the compartment is confronted by the number which records the voltage. On approaching the compartment he must be accompanied by the man with the key, while a considerable amount of formality has next to be observed before he is allowed to commence his work. For example, if alterations or additions are to be made in the connection or location of any of the high-tension apparatus, a sketch of the proposed changes must be furnished the system operator twenty-four hours, if possible, before the work is scheduled to begin. Next, the foreman of the electrical construction department or the employee whom he delegates to do the work must make sure from the regulator in charge of the switchboard in the station where the work is to be done that the particular cable, bus, or switch is not connected with any source of high potential, and, further, that it has been discharged to ground since it last carried high-tension current. The regulator must then notify the system operator that the construction department is prepared to proceed with the work marked out in the sketch. The station operator, on receiving word from the system operator, then sends two assistants to block the switches and connect all conductors to ground and to each other by means of the grounding and short-circuiting device provided for the purpose. They place "hold off" signs on the switches and report to the station operator, who blocks and tags the control circuits on the switch board. A work order is then issued to the foreman, permitting him to proceed with the job. The work completed, a note to this effect is made in the high-tension log book and the apparatus is inspected. If it is then pronounced ready for use, the regulator notifies the system operator, and, on receiving instructions from him, orders the grounding and short-circuiting device, the switch blocks, and "not clear" cards removed, and notes the operation in the log book. The same care is taken in all work on the high-tension apparatus. So protected is this apparatus that the men cannot come in contact with any of the live parts, except by removing the insulating barriers and doors. All cables are insulated, and the greatest care taken to insure their being dead when they are worked on.

The popular notion about the danger connected with electrical current is based on the supposed fact that any contact with a highly charged conductor must necessarily result in serious injury. The fact of the matter is that the current becomes dangerous from the characteristic of high voltage. Even then, if there is adequate protection against the passage of the current through the body, it is harmless. Should, for example, the workman's shoes be dry and insulation attained by dry rubber or wooden flooring or rubber mat, a connection with a return conductor is prevented and the man is safe.

All rotary converters in the Edison Company's

stations are provided with hand rails and rubber mats, so that a man may be protected from danger to the fullest extent. There is also provided a regular system of inspection by authorized men, on whom devolves the duty of immediately reporting any fault which may develop in any part of the transmission or transforming system. Such inspection determines where accident might possibly occur, and the possibility of danger is straightway removed. Each operator is given a book entitled, "Rules for the Government of Employees Operating and Handling High-Tension Apparatus." Every book is numbered, and the operator who signs for it is expected to familiarize himself with its contents.

Another measure of precaution is provided in the handling of all dangerous apparatus with lineman's rubber gloves which have previously been subjected in tests to a pressure far exceeding the voltage of the work to be done. Such are the methods to insure the safety of employees during work of this kind. In both generating and substations all dangerous apparatus is marked and the voltage conspicuously indicated. The liability of accident under these circumstances is obviously reduced to a minimum, as the company's statistics bear witness.

Fig. 1. New York Edison Company. Rubber gloves, sleeves, line protectors, mats, and safety belts used by linemen.

But when all is said and done, undoubtedly the ultimate safeguard against accidents is education. This means not only the acquirement of technical skill, but education of a sort to develop mental alertness, accuracy of judgment, and a genuine and lively interest both in the employee's welfare and in that of the company. Adequate rules may be multiplied, the latest and most advanced safety appliances may be installed, but the deficiencies of human nature remain to be reckoned with. It is not always the employees who stand the highest in rules examinations who have the clearest accident records. Emphatically it is the mentality of the men which must be trained to meet, not only emergencies, but the inevitable risks inherent in the daily routine. It is thus that educational effort is called for imperatively, for by this means alone will the workman be brought to a clearer appreciation of life and its responsibilities, and made more alert to the opportunities and dangers of his profession. By this agency he is also brought to realize the significance of the efforts being made to help him.

Fully awake to the importance and urgency of such welfare methods, the New York Edison Company endeavors in every way to promote these ends. Not only are classes provided which afford a comprehensive technical knowledge of the industry, but other courses give the men an opportunity to familiarize themselves with the commercial aspect of the company's affairs. Laboratory courses, conducted under the auspices of the employees' association, provide instruction, without cost to the employee, in electrical science from the most elementary principle to the most advanced application. Night courses have been arranged for day workers and day courses for night workers. In this way any man who enters the employ of the company without technical training, and with an ambition to become proficient along such lines, may acquire such training by his own effort. Numbers of the company's present employees who began as helpers, even boys serving in offices, have, by taking advantage of these opportunities, advanced themselves to responsible positions.

A later development, the commercial school, is designed to meet special needs among employees, both men and women. A new employee serving in some one of the company's many departments is in this way enabled to see its relation to other departments, and to fit himself for advancement which involves such knowledge. In this school the student is made thoroughly conversant with the company's affairs. He is given also adequate courses in salesmanship and lectures on recreation and hygiene. A course of remarkable effectiveness along these lines has been given the women of the company within the past year. The

lectures on such subjects as "Industrial Ideals," "Developing of Personality," "The Meaning of Leisure," "Physical Efficiency," and "Getting the Most Out of a Vacation," have been given by such eminent authorities as Dr. James J. Walsh and Dr. Luther Halsey Gulick. The school is unique in the fact that its work is done entirely on the company's time. On this basis the work is considered as part of the company's work, and in consequence no employee who comes in contact with the public is without instructions along these lines. His work in the school is graded, and the results are referred to in the matter of promotion. By such means does the company seek

Fig. 2. New York Edison Company. Type of medical cabinet provided in all the stations.

to discharge its responsibility, not only as employer to employee, but as public servant to a community which has been warranted in expecting adequate and consistent service.

Further in line with the company's broad welfare policy was the encouragement accorded its employees in the establishment four years ago of a savings and loan association, the object being to provide a means of home owning and a form of investment or saving through installments, offering a fair return. This association differs from other institutions of the kind principally in that the company assumes the expenses of operation, and provides all necessary clerical assistance in addition to the officers and directors, who are all employees. That this clerical assistance is no small item may be more readily appreciated when it is explained that fully 80 percent of 2,600 members pay their dues in weekly installments, which are deducted from the salary envelope. This involves a tremendous amount of work, which, if creating an item of overhead expense, would reduce considerably the liberal dividends now possible. Through this contribution on the part of the company, practically all the earnings are net, and, without deduction of any kind, except for the required contingent reserve, are distributed as profits throughout the entire membership. Already some one hundred loans, ranging in amounts from $200 to $7,400 and aggregating $315,000, have been made; in some instances for the erection of homes, in others for their purchase, in some for the transfer of existing term mortgages to the customary installment arrangement, and in still others for property improvements.

At present there are 2,600 members, whose payments in all classes of shares now aggregate $21,000 monthly. Practically all of the money received, $350,000, has found an outlet in desirable first mortgages. Compared with other and much longer established institutions, this association may not now, perhaps, be considered large in the usual sense, yet it is felt that in its short life it has been prosperous to a gratifying degree. All indications point to its steady growth, and for the future much is expected.

An association of employees involving far-reaching benefits was organized in the fall of 1905. Not only did the original plan, which contemplated social and educational features, receive the hearty approval of the company, but cooperation was given by the executives in the establishment of a mortuary fund. Membership in the association at first carried with it a death benefit of $100, to which an equal amount was contributed by the company. This benefit was later increased to $150, bringing the total to $250. During the past year arrangements were perfected with the Travelers' Insurance Company to insure, without medical examination, all members in the sum of $250. To this the company adds $100, making a total benefit of $350. The yearly premium is low—$2.60, covering also association dues —and members are privileged to take additional insurance to the amount of a year's salary, not, however, exceeding $3,000. Though the insurance feature was an afterthought, it soon took a prominent place, and perhaps has been the largest factor in the successful upbuilding of the association. Some idea of the progress made is shown

by a comparison of the membership. Thus, in 1905 there were twenty-three members from an available roll exceeding 3,700, while at present the membership numbers 5,300 out of approximately 6,000 employees. The association provides, in addition, for a sick benefit fund for hourly employees.

The association possesses an adequate and well-equipped club house on East Twelfth street, near Fourth avenue. The building affords bowling alleys, pool and billiard rooms, extensive reading rooms in conjunction with a well-stocked library, and ample facilities for dances and receptions.

THE NURSE—LABORER OR PROFESSIONAL?

Bill Classing Nurses With Factory Employees Now Before Illinois Legislature—Chicago Hospital Association Formed to Fight Hospital Clause

For some reason, the framers of the bill on hours of women's labor, now pending before the Illinois Legislature, have seen fit to include under its provisions hospital nurses in training, except those assigned to operating-room service. The bill provides (italics ours):

"Sec. 1. That no female shall be employed in any mechanical or mercantile establishment, or factory, or laundry, or hotel, or restaurant, or *hospital*, or telegraph or telephone establishment or office thereof, or in any place of amusement, or by any person, firm or corporation engaged in any express or transportation or public utility business, or by any common carrier, or in any public institution, incorporated or unincorporated, in this State, more than eight hours during any one day. The hours of work may be so arranged as to permit the employment of females at any time so that they shall not work more than eight hours during the twenty-four hours of any day or more than forty-eight hours in any week; *provided, that the provisions of this section shall not apply to graduate nurses or nurses assigned to services in operating rooms in hospitals.*"

This legislation, of course, would materially affect the working of hospitals unless they are exempted from its operation. Chicago hospital executives, therefore, have organized to work for the exclusion of hospitals from the provisions of the law. A special meeting, held February 19, was attended by representatives of sixty hospitals. Resolutions were adopted stating the opposition of the association to the bill in its present form. A committee of five was appointed to take such action as might be necessary to secure a hearing before the proper committee of the Legislature to secure an amendment exempting hospitals from the provisions of the bill. All members were urged to register with their respective representatives protests against the application of the bill to hospitals. A circular sent out by the association reads in part as follows:

"1. Nursing is a profession. It stands in the same relation to the sick of the world as the medical profession. The work of nurses can no more be regulated by a hard-and-fast law than the work of the doctors or mothers. The sick and the children are here and they must be cared for. The nurses all over the world will protest at being classed as wage-earners.

"2. Nurses in training are not employees in the sense that they are wage-earners. They are a part of the hospital family, and are cared for as a father cares for his children. The money given them is only given as pin-money to take care of books, carfare, etc., not as wages. Their whole so-called working time is devoted to the study of the theory and practice of nursing.

"3. There exists an erroneous idea that nurses in training are abused and overworked, a broken-down, sickly lot, while in reality nurses are the healthiest young women in the world, because they live regular hours, eat regularly, sleep regularly and enough, and are taught and made to practice the rules of hygiene that spell health. The health and well-being of the nurses are of such paramount importance to a hospital that there is no necessity for outside legislation to regulate this. The hospital, to exist, must see that its nurses are mentally, morally and physically right.

"4. If the time of the nurses in training is to be reduced, it will be necessary to increase the length of the course in the training schools. There is no more time than is necessary now, to teach them what they must know.

"Furthermore, it will require at least a third more nurses in training than we now have, and this will so greatly increase the expense of conducting the hospitals that it will be necessary to raise the rates in all hospitals and reduce the amount of charity done. Hospitals are not money-making institutions. They exist for the benefit of the sick of all classes, and it is all that a hospital can do now to get money enough to keep its doors open.

"The hospital cannot be put in the same category as offices, factories, stores, etc. Hospitals must be kept open night and day, seven days in the week.

"It is apparent that no proper investigation of hospital conditions has been made by any person or persons competent to judge the needs of nurses or employees of this bill.

"We object to supervision of hospitals at the hands of factory inspectors. Investigation and regulation of hospitals in the state is heartily approved, but should be directed by the State Board of Health."

The officers of the association are: president, Asa Bacon, superintendent Presbyterian Hospital; vice-president, John L. Meigs, superintendent St. Luke's Hospital; secretary, Dr. E. T. Olsen, superintendent Englewood Hospital; treasurer, Dr. C. O. Young, superintendent Washington Park Hospital.

American Medical Association Committees of Interest to Hospital People

In our last issue we gave the membership of various committees of the American Medical Association which are concerned with subjects of interest to hospitals. In addition we are now able to give the membership of the Committee on Hospital Social Service as follows: Mr. James K. Paulding, 133 W. 11th St.; Miss H. H. Combs, Hospital Social Service Conference, 405 Lexington Ave., New York; Dr. E. C. Stillman, 17 E. 72d St.; Miss M. E. Wadley, Bellevue Hospital; Miss Ruth Morgan, 26 Washington Square; Dr. Alexander Lambert, 43 E. 72d St.; Dr. S. S. Goldwater, Mount Sinai Hospital; Dr. Richard Derby, 116 E. 79th St.; Dr. Lewis A. Conner, 121 E. 62d St.; Dr. Virgil P. Gibney, 16 Park Ave.; Dr. William Lohman, 472 Washington Ave., Brooklyn; Mrs. C. F. Neergard, 24 Monroe Place, Brooklyn; Miss Jessy Palmer, 426 E. 26th St.

Too much sameness in the things one has to think about will callous the intellect. A horny hand is honorable, but the brain is no place for corns. In a word, hunt the job for which you are specially fitted, go to it and stay with it.—*Bull. Chicago School of Sanitary Instruction.*

Hospital nurses find many strange charms and mascots on the persons of wounded soldiers. One Irish soldier who had come through a fierce battle with a severe scalp wound, had a piece of Irish bog-oak, a prayer written by a French girl, a withered shamrock, and a piece of wood from a saint's cell.

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Editorial Office . . . . . Conway Building, Chicago
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EDITORS.

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Winford H. Smith . . Johns Hopkins Hospital, Baltimore
S. S. Goldwater . . . . Mt. Sinai Hospital, New York
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A Plea for Sickness Surveys

It is a mistake to assume that the hospital plays the leading role in the care of the sick. To the hospital administrator, the institutional treatment of illness bulks large in the world's affairs. The task of medical administration, however, is not merely the orderly, economical, and efficient management of the hospital, but also the adequate care of the community's sick, and in the solution of this broader problem the hospital ranks as a factor of only secondary importance.

In Boston, an insurance company recently canvassed several parts of the city, including the outlying sections of Dorchester, Roxbury, and South Boston. More than 300 men were engaged in the survey. Together these men canvassed 20,497 families, and presented returns of illness for a total of 97,259 persons (equivalent to about 13 percent of the total estimated population of the greater city of Boston). Among this population, 1,902 cases of sickness were discovered, the rate being 19.6 percent sick in 1,000 persons canvassed. Of the 1,902 sick, 1,747, or 91.9 percent were disabled, and of this number 337, or 17.8 percent, were receiving treatment in hospitals.

Under the same auspices, surveys have been made in other parts of the country. In Rochester, N. Y., 10.7 percent of the total sick were found to be receiving hospital care, while in North Carolina, where the number of hospital beds per unit of population is far below the average found in Northern states, only 2.4 percent of the total sick were hospital patients.

An illness census that throws further light on existing conditions was recently made by the Department of Health of the city of New York. This New York survey covered a tenement house district having a population in February, 1916, of 29,995. In a survey made in February, 1916, the sickness rate was 24.5 per thousand for the entire population. In an earlier survey, made in the same district in August, 1915, a sickness rate of only 7.7 per thousand was recorded. Seasonal variations of this character probably occur every year.

An analysis of the February figures of the Department of Health yields interesting returns. Of the 757 persons reported ill, 75 percent were incapacitated. The cases treated in hospitals were only 10 percent of the total number. Dispensaries (which are numerous and accessible in New York) and private physicians figured about equally in the work of medical relief; dispensaries cared for 35 percent of the total sick, private physicians for 34 percent. Dispensaries, private physicians, and hospitals, combined, cared for only 79 percent of all persons ill in the district, while 21 percent were without medical care of any kind. In Rochester, conditions were even worse, for the Rochester survey disclosed the astonishing fact that 40 percent of the total sick were either self-treated or not treated.

These surveys show how heavy is the responsibility which rests upon the shoulders of the private practitioner. The burden of the private physician diminishes gradually as hospital and dispensary facilities increase, but it remains great even in those communities in which medical relief is most highly organized. In North Carolina and other Southern states, hospital development is in its infancy. In New York, where hospital beds are relatively numerous, only 10 percent of the total sick come under hospital care, and even in Boston, the hospitals apparently care for only one-sixth of those in need of medical service. The service of the private practitioner, however, is not limited to the actual treatment of patients under his care, but includes also the choice of hospital treatment. In the experience of a representative hospital in New York City, more than 50 percent of the applicants for admission come to the hospital only when advised to do so by private physicians.

What are the presumptive causes of medical

neglect in the many cases of illness in which physicians and hospitals do not figure at all? Such neglect may be due to ignorance, to fanaticism, to distrust, to a stoicism which is far from rare among workingmen, to lethargy, to poverty, or to several of these causes combined. Those who undertake the organization of medical relief in any community must first of all ascertain the extent of the need and of the existing provision for such need; the next step is to determine the causes of neglect; the third step is to obviate such causes. The time has arrived when every community in the country should undertake a local sickness survey, with the humane purpose of bridging the gap between medical art and those who are in need of its ministrations. We can imagine no way in which the expenditure of a given amount of money and energy can be made to yield a greater social return.

S. S. GOLDWATER.

Standardizing Hospitals

We have been thinking for years in terms of standardization of our hospitals. We have looked longingly at the stars in thinking of hospital service, but too many times we have plodded along in the valleys. High ideals have been our goal, but the deadly grind of the day's work has held us short of realization. Something has been achieved by all of us to meet the demands of modern medicine in the care of the sick entrusted to us—something, but not enough. We have all realized the need of better hospitals, better equipment, and above all else, better service, but how to do it—that has been the question.

Many agencies have been at work studying to find ways to bring about some working standards—standards that will make it possible for one hospital to form comparisons with what other hospitals are doing. The Hospital Section of the American Medical Association had a standing committee for several years; the American Hospital Association has had such a committee. At the last meeting of that association another committee was appointed to collaborate with the American College of Surgeons on the subject, and Dr. J. G. Bowman, director of the college, read a paper before the association at Philadelphia, stating that he had secured a fund to begin a comprehensive study of the problems of standardization and asking for the cooperation of the association. The appointment of the committee followed. The Catholic Hospital Association has indicated its intention to concentrate the whole three days of its coming annual meeting on the same problems, in symposium form. Much may be expected of this meeting.

During these past few years, I personally have been a rather close student of this subject, part of the time as chairman of the standardization committee of the American Hospital Association, and as a member of the committee of the Hospital Section of the American Medical Association. For years I have studied how best to gain knowledge for the benefit of my own hospital by comparing what I was doing with what others were doing. I do not consider myself by any means competent to create standards, and at best the result of anything that I might do could be considered only a skeleton to build up on.

I am asking for the collaboration of a number of specialists in hospital work in whom I have confidence and whose names will be announced later; together we are to publish in THE MODERN HOSPITAL, beginning in this issue, a series of papers discussing the items in standardization, taking as a basis the classification of hospitals given in the introductory paper in this issue. The reasons for this particular classification have been studied pretty carefully, and I could wish that the hospital people would read it and criticize it fearlessly, because the series of papers and the criticisms now offered must be of value when an authorized body comes to consider the subject in all its wide examinations.

If we can have criticisms in writing to be published in the number following each paper it will be an advantage. Studying the various problems together in this way, we may, it is hoped, build something of real constructive value, based, not on one opinion only, but on a study by all the thoughtful hospital people together.

JOHN ALLAN HORNSBY.

Eight Hours for Nurses

An eight-hour female labor bill (Senate Bill No. 10) is now before the Illinois Legislature. A note about it is published elsewhere in this issue in connection with the formation of the Chicago Hospital Association.

The proposed legislation is very important in that it contemplates protection of the health of women workers. It seems to direct its chief aim at factory workers; at least those will be its chief beneficiaries if the bill finally becomes law.

Hospital workers would be the last to join in working for the defeat of so meritorious a piece of legislation. Unfortunately, the bill is made to include women workers in hospitals, including nurses. No one will gainsay that nurses and women hospital employees ought to be protected,

and no one could reasonably object to that protection being guaranteed in formal legislation. But it would seem more desirable that special legislation should deal with these very special and exceptional classes of women workers.

For the purposes of this discussion, hospital women may properly be divided into three classes: (1) graduated nurses; (2) pupil nurses; (3) domestics and other paid employees.

The proposed legislation does not include graduated nurses, probably for the reason that experience with similar legislation in California has demonstrated that people in moderate circumstances who cannot possibly afford three eight-hour nurses are the chief sufferers by the inclusion of graduates in that law.

Pupil nurses ought not to be classed with factory employees for several reasons:

1. Their status is that of pupils striving for an education, that they may become members and licentiates of an honored profession.

2. The work of pupil nurses varies between actual care of the sick, under trained direction, and their study and recitation hours—in school, as it were. The sick are not able to accommodate themselves to an eight-hour relief schedule, and many times it will happen that some very vital treatment is being given when the nurse's eight hours are up. Must she resign her unfinished task to another, who perhaps has not been made entirely familiar with the "doctor's orders," or shall she be allowed to complete her task? If she is to be allowed to finish, why not then make a special law for nurses covering this as well as other points?

3. Hospitals are the health centers of a community and it is a well-known fact that maids and other hospital domestics are better cared for than almost any other class of women workers; they too have their duties to the sick that cannot be broken into by fast-drawn hour limits without subjecting patients to distress, as at meal times, for instance.

But there is another point in this proposed legislation that our lawmakers should consider most carefully, namely, its effect on the present tendency toward almost universal hospitalization of the people. Scientific medicine has progressed so rapidly of late that actual diagnosis and competent treatment are fairly dependent on the laboratories, the x-ray equipment, the special dietary, the asepsis now demanded, and these are to be had only in a hospital, with its composite equipment and its trained personnel. Recognition of these facts is responsible for a phenomenal awakening in every part of the country, until now it seems that every county—indeed, every hamlet—longs for its due share of recognized modern care of its sick, and the stories of personal and community sacrifice to create small hospitals are among the inspiring periods of our contemporary social history.

In California the operations of the female labor law, passed two years ago, have driven out of existence many small community hospitals in that state. Do our lawmakers wish to check the progress toward that nearing day when every sick and hurt man, woman, and child shall have access to a bed in a competent hospital, where poor and rich alike may share the blessings of scientific medicine? Pupil nurses are hard to obtain for these small community hospitals at best; are the terms of their pupilage to be so limited that small hospitals deprived of the services of such pupils in return for their training must close their doors, and so the whole trend toward a universal hospital era be turned back? Do we wish to return to the time when only the rich man could afford adequate care for his sick, and the poor were deprived of hospital care altogether because there was "no vacant bed"?

Imagination in the Hospital

Of all possible careers, hospital work is one of the most absorbing. It is one in which the tendency for the conscientious executive to become absorbed in details and to lose sight of all other aspects of life is almost overwhelming—unless conscience is balanced by imagination. The few hospital executives who do possess imagination in addition to other qualifications for leadership are the pick of the profession, for, after all, the man who knows only one thing never knows that thing really well. For real success, a man or woman must have, in addition to knowledge, conscientiousness, perseverance and all the rest, the ability to surmount detail and to "see life steadily and to see it whole."

We should not love our work less, but most of us should play more; we should take more delight in our privileges as human beings, not mere hospital functionaries. "The world is so full of a number of things" that the human being who allows one thing to absorb his mind and soul cheats himself of his birthright. Those who enrich their natures by the study and enjoyment of the beautiful world we live in, and the treasures of art and literature in it, will find themselves just so much the stronger for their professional duties.

All this is merely by way of preface. The following poem by Dr. Frederic Brush, superintendent of Burke Foundation, White Plains, N. Y.,

was published in the New York *Times*. Dr. Brush proves all that we have just said.

MANILA BAY

Quick lights flared on the looming isle,
And red flames blurted into the night;
But the silent man on the cruiser's bridge
Turned not to left or right.
Eyes that gaze on the unborn years
May not be troubled by lights or tears.

The warm sea hissed to the touch of shell,
And reared on the back of the buried death;
Yet the seaman gray with his tools of war
Slid sullenly past Corregidor,
And was gone like a spirit's breath.
Men that move to the tryst with fate
May never be noisy, and never late.

The harbor glowed to the orient morn;
The men stripped buff, and said no word.
Then down on spluttering fleet and shore
Still as phantoms the gray ships bore.
Waiting the call of the Commodore—
That all the nations heard.
"You may fire when ready," was all he said;
But the enemy's decks grew strangely red.

Out from the narrow channeled throats,
Tense with the wrath of the years of wrong,
The little black demons leapt away,
Shrieked and whimpered over the bay,
Crooning a direful song.
Men that hurry to war in ships
May kiss cold faces, with colder lips.

White waved over a battered wall;
The harbor stilled, the banners furled.
Anglo-Saxon, East and West,
Met round a wondering world.
When a nation clogs in the wheels of Time,
Comes cursing and crushing—and work sublime.

Suits for Damages Against Hospitals

The laws bearing on hospitals and their operations probably vary more in the several states than those concerning any other social activity or interest, for the reason that hospitals, according to the modern acceptation of the term, are not themselves standardized, and have, moreover, undergone such rapid and vast evolution that no two lawmaking bodies, working independently, could possibly keep step with them in the same rhythm or speed.

One of the most flagrant variations in these laws concerns the right to collect damages for injuries suffered by patients and employees. Letters frequently come to THE MODERN HOSPITAL asking whether a hospital may be successfully sued for damages for personal injury. Several months ago a number of such inquiries came at about the same time. THE MODERN HOSPITAL conceived the possibility of getting some serviceable information concerning grounds for damage suits, not only for specific inquirers but also for the hospitals as a whole. The problem was submitted to Mr. A. J. Pflaum, for twenty years a director in Michael Reese Hospital and its attorney, and one of the prominent lawyers of Chicago. Mr. Pflaum has taken his time to look into the matter very carefully, as befits the importance of the subject, and in another column will be found a brief on the subject which forms, we believe, one of the most valuable contributions to the hospitals of the country made in recent years. Mr. Pflaum goes into the subject very thoroughly, and at least paves the way by which hospitals in every state of the Union may ascertain just what their rights and privileges—and obligations—are.

We wish to thank Mr. Pflaum, on behalf of American hospitals, for his painstaking and illuminating research and opinion.

"Unchanging China" No More

Most of us scarcely realize as yet that ancient China has declared for progress, not merely in external things like forms of government, but also in matters affecting the lives and personal habits of the individual. On another page of this issue we quote from the *China Medical Journal* an incident illustrating the spirit of the "immutable East" and the hold of racial traditions on the heart and soul of a highly intelligent Chinese. Though deeply versed in Western literature and science, this Chinese scholar on his deathbed cared for no medical attention save the incantations of a Chinese medicine man. A most illuminating contrast is furnished by the description, contained in our leading article this month, of a modern hospital, planned and administered along progressive lines, which has been established in the city of Peking—and by Chinese! Administrators, physicians, nurses, and patients—all are natives. The hospital even owes its inception to an able Chinese physician, Dr. Wu Lien-teh, the author of the article, who was educated in Cambridge, England, and who won fame by his great work during the plague epidemic of 1911 in Manchuria. Evidently we must learn to say "progressive China" instead of "unchanging China."

The very first canon of nursing, the first and the last thing upon which a nurse's attention must be fixed, the first essential to a patient, without which all the rest you can do for him is as nothing, with which I had almost said you may leave all the rest alone, is this: To keep the air he breathes as pure as the external air, without chilling him. —Florence Nightingale, "Notes on Nursing."

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

Monthly Bulletin issued from the Executive Offices
44 Baxter Building, Philadelphia, Pa.
WILLIAM H. WALSH, M. D., Secretary.

Official Bulletin for March

ANNUAL DUES

In accordance with the change in business procedure of the association, membership cards will henceforth be issued for one year commencing with January 1 in lieu of the previous arrangement whereby payments were received for parts of two years. The dues for membership for the year 1917, therefore, are now payable and should be received by the secretary on or before the date of the convention, September 10. New cards have been printed and will be issued to those who pay for the current year.

ANNUAL CONVENTION

The nineteenth annual convention will be held in Cleveland, Ohio, September 10-15, at the Hollenden Hotel. This preliminary announcement is made in order that members may make hotel reservations early. The hotel accommodations of Cleveland are none too liberal, and, unless all those planning to attend write in advance, they may experience much inconvenience on their arrival.

The Cleveland Hospital Council is busily formulating plans for the convention, and from present indications the association will receive a royal welcome in September.

PROGRAM

Attention is again directed to the desire of the president to receive suggestions as to the scientific program. Members desiring to present papers should communicate with this office as soon as possible, at the same time giving the title of the paper proposed and some indication of its contents.

REGISTRATION BUREAU

The axiomatic statement that "it takes two to make a bargain" applies as well to the work of this bureau as to any other matter. We have succeeded in listing a number of well-recommended superintendents, training school principals, housekeepers, etc., and have also been enabled to place some of them successfully; but, unless hospitals will advise us when vacancies occur, our list will continue to grow and our ability to place applicants will diminish. If unlimited funds were available, we might proceed on different lines, but, in the absence of a large appropriation for this work, we have a reasonable right to hope and expect that those who read this notice will lend their cooperation. If all the members of the association would notify this office when a vacancy occurs and also advise us whenever they are seeking a new position, our work would be much more efficient and our accomplishment greater.

Hospitals desiring the services of the bureau should supply the following information: position to be filled; requirements as to qualifications; when vacancy is to be filled; maximum salary; possibility of increase; nature of institution. (Service of the bureau open to any reputable institution.)

Members of the A. H. A. desiring positions should supply the following information: position desired; qualifications (educational); references (two); experience; when position could be accepted; minimum salary. (Service of the bureau available to members only.)

COMMITTEE WORK

The chairmen of all committees are urged to keep this office advised of all meetings and matters of importance to the association. It is also suggested that, whenever it may be deemed advisable to send out notices, questionaires, etc., copies be sent to the secretary. Any committee items of general interest sent us will be included in the monthly bulletins published in these columns.

NON-COMMERCIAL EXHIBIT

In appointing a large number of able members to the committee on non-commercial exhibit, it was the aim of the president to make this display of increasing value to the association. While past exhibits have been commendable, there has of late years been a tendency to display some exhibits of very doubtful value. Unless an object possesses some novelty or originality there is little use in showing it, and each commonplace exhibit detracts from the value of the whole, while it utilizes space that might be occupied by something of real value. Dolls, for instance, however beautiful or unique, are lacking in interest unless they are used for the purpose of emphasizing some new part of a uniform or nurse's equipment. Hospital executives are not interested in the various colors of uniforms or in the innumerable shapes of caps; but a new cuff or short sleeve, a more useful cap, shoe, or apron, or some other innovation that would mean more comfort to the nurse, would immediately attract attention and excite interest.

Ordinary clinical charts are of little interest unless some new idea is introduced for the more efficient registration of clinical data, the more facile teaching of the nurses, or the more exact recording of information obtained by the physicians. Exhibits of institutional industrial departments are always welcome, and are of intense interest to all those affiliated with hospitals for the insane, tuberculous, and chronics.

Home-made instruments or appliances, when embodying new ideas, are a great help and incentive to those institutions that do not realize the extent to which the mechanical force can be utilized when not busy with the usual routine.

The president is confident that the committee will produce an exhibit of unusual attractiveness, and merely mentions the foregoing as a hint of what may be expected.

CHANGE OF ADDRESS

Every month there are numerous changes in addresses of members about which we hear only by accident. It would be a great help to us if notification of change of address were sent this office at the earliest possible moment after it is made, particularly at this time when we are trying to get our mailing-list in shape for sending out the transactions.

The smallpox that's most "ketching" and that puts us on the rocks is the kind that's just regarded as the simple chickenpox.—Illinois Health News.

HOSPITAL ORGANIZATION IN RURAL PENNSYLVANIA[1]

Inadequacy of Hospital Provision and Equipment in the Outlying Districts—Need of Higher Standards and More Efficient Organization

BY HAROLD L. FOSS, M. D.,

Surgeon-in-chief and Superintendent of the George F. Geisinger Memorial Hospital, Danville, Pa.

Pennsylvania, with the exception of its largest cities, has a population of some 6,000,000, for the sick and injured of which are provided about 150 hospitals—some good, some bad, and a great many indifferent. Within the year the Legislature at Harrisburg listened to the statement, made by an official high in authority, that of these institutions 75 percent were incompletely equipped and grossly mismanaged. Until a few months ago, of the hospitals outside of Philadelphia and Pittsburg, not over 15 percent had adequately equipped laboratories, and, with a few notable exceptions, trained pathologists in charge of the laboratories were completely unknown. Fully 90 percent of all our Pennsylvania hospitals other than those of the great cities have no trained laboratory worker whatever, or have enrolled as "the pathologist" some member of the medical or surgical staff who possesses no knowledge of pathology beyond that requisite to the performance of the simplest laboratory tests.

More or less satisfactory x-ray departments exist in 75 percent of our rural hospitals, but not more than 20 percent of them are adequately provided with apparatus for fluoroscopy or therapy, the vast majority being equipped only for gross picture work of the bones and joints. Last winter an aged and decrepit Hupmobile made a flying tour of the eastern section of the state, visiting many of our rural hospitals and leaving chagrin and consternation behind. As a result, a great change has been taking place in many of these institutions. Along with other reforms, x-ray departments are being added and old ones are being replaced under the management of more competent men, while pathological laboratories are being introduced generally, with trained pathologists or at least full-time technicians in charge.

It is hoped that these new departments will succeed, but in this connection one recalls that the staff members of most rural hospitals know little, and care less, about pathological work. In many an institution where a younger member of the staff becomes enthusiastic and attempts to develop something in the laboratory, far too often he receives such little cooperation or his efforts are damned with such faint praise that he speedily becomes discouraged. Unless every member of the staff shows an interest by using the laboratory, it will be difficult to make rapid progress along this direction. Hospital reforms are, however, developing rapidly in rural Pennsylvania, for which we have greatly to thank the irascible, aggressive, and highly efficient president of the Bureau of Medical Education and Licensure.

Recently the attention of those hospitals desiring to be placed on the approved list of institutions eligible to give the intern year has been called to the necessity of providing adequately equipped and scientifically conducted laboratories, with special departments of anesthesia, roentgenology, and obstetrics. These demands have now been made mandatory by the attorney general and are to be enforced. More recently still has the Bureau of Medical Education emphasized its desire that each hospital regard itself as an associated and integral part of the medical teaching of the state.

The bureau, furthermore, informs us that it is its purpose to attempt to stimulate all our hospitals to be active and efficient contributors in the collection and correlation of accurate and easily accessible data in reference to the treatment of the sick. To this end have been made detailed suggestions as to uniform and practical methods of case record keeping, and these have been sent to all rural institutions. Such measures, following the establishment of the compulsory intern year, have done more to raise hospital standards in Pennsylvania than have the combined results of all our other institutional reforms for the past fifty years.

Our needs in rural Pennsylvania are clearly indicated, but, discouraging as it appears, it is yet a far cry from the indications to what is possible of early accomplishment. Philadelphia, with a population of 1,500,000, has sixty hospitals and hospital property representing $45,000,000, while 6,000,000 residents of rural Pennsylvania are served by 150 hospitals, less than half of which are acceptable. The average amount of disease among that 6,000,000, if it is to be treated by modern, scientific methods, can keep three times the number of institutions now provided constantly filled. In this connection I wish to speak of a method of rural hospital organization of comparatively recent development in this country, but one most practicable and scientific, several examples of which are now to be seen in operation in our own state.

An English surgeon returning home from a tour of inspection of our American clinics was asked what factors accounted for the surgical supremacy of the western world. His answer was that they were chiefly two in number, and their names were Will and Charley. If I were asked what was the Mayos' chief contribution to medicine, I would say, from an intimate knowledge of the men and their methods, that it was their plan of hospital organization. Nowhere in the world is there such a perfectly systematized institution for the diagnosis and treatment of disease or for the prosecution of scientific research as now exists in a little town in rural Minnesota, and I pause for a moment to pay tribute to its founders, my good friends and former kind and distinguished chiefs, Drs. W. J. and C. H. Mayo.

The fixed staff, composed of especially trained and carefully selected men, each with special work, in which he is an expert, to perform, and all working to the accomplishment of the "grouped diagnosis," is the fundamental plan of organization at Rochester, and this plan, in a small way, is eminently applicable in the development of the rural hospital. Such an organization should be constructed, if possible, on a salary basis. There are especially certain positions which, to secure the highest efficiency, should be maintained by fixed salaries—those of the pathologist and chief anesthetist especially. If properly organized, such a scheme will be productive of greater efficiency than can possibly result from any other method. There are now in rural Pennsylvania several examples of hospitals organized along these lines, and their success is unquestioned.

Efficiency is a greatly overworked and frequently abused term. As applied to the hospital, it has been measured in devious ways—that is, per capita cost, average length of stay in the hospital, mortality rate, etc. Any of these may be a factor in or the result, but rarely the measure, of efficiency. Organization is, first and last, the paramount factor, and the thoroughness and completeness with which the work is done should be the gauge. There

[1]Read before the Pennsylvania State Medical Society, Scranton.

is a great tendency to measure hospital efficiency by per capita cost, but this tells nothing except as applied to the particular institution under consideration. The purpose of the hospital is to treat and care for the patient, and the end result should be all that modern skill and knowledge, supplemented by the necessary facilities, can accomplish at the hands of carefully selected individuals composing the organization. The organization is the power that produces the results.

Appointments to the staff should be made only on merit. Especially should this be emphasized in selecting men to handle the work of the specialties. Recently the trustees of a rural Pennsylvania hospital, in their wisdom, issued a ruling that candidates desiring to be admitted to the surgical staff of the institution of which they are directors must show evidence of having taken a post-graduate course in surgery of at least two months' duration. Specific requirements of even that stringency are rarely made in our rural institutions, and eligibility to operate in 90 percent of our hospitals implies no special training. No hospital more than the rural hospital, and no class of patients more than those of the rural sections of our state, will profit by the passage of a law demanding, as has so often been urged, a special license for the practice of surgery.

There are in rural Pennsylvania, at some distance from each other, two hospitals of equal size, modern, up to date, and completely equipped. Both are situated in manufacturing towns of approximately equal population, each is the only institution in its respective community, and each has a sound and adequate financial basis. The first has no regular staff, while the other has a salaried full-time staff residing on the premises and giving its undivided attention to the institution. The second hospital accomplished more work in the first year of its operation than did the other during its first three years. The comparison is absolutely fair—the discrepancy is due entirely to the faulty methods of staff organization in the first institution.

The success of the rural hospital will depend largely on the education of the people, and to a great extent on the training of the general practitioner, on whom rests the initial responsibility in the making of the diagnosis, or at least of recognizing the need of hospital care of the case under his observation. To the general practitioner well-organized rural hospitals are bound to be of great assistance from an educational standpoint. To them the laboratories, the x-ray department, the cystoscopic room, and the operating room should be open, that they may be offered a form of invaluable teaching which, before the advent of a hospital in their community, was impossible for them to secure. Thus there may be revealed to them the marvels of bacteriology, of serology, of medical chemistry, of fluoroscopy, cystoscopy, etc., so that they may realize that these are not matters far beyond their ken and reserved only for their more erudite brethren of the city, but are perfectly understandable and can be of the greatest practical use to them in their rural practices. Let clinic benches in the operating room be reserved for them at all times, so that they may acquire a knowledge of living pathology and thus tremendously change their viewpoint of surgical lesions generally. Permit them to realize the danger of the neglected suppurating process, whether it be in the appendix or in the medulla of a bone. Let them realize, as the result of actual demonstrations in the operating room, that gastric and duodenal ulcers are not rarities, that gall-bladder disease, either with or without stones, is exceedingly common, and that the mythology of "acute indigestion," "gastralgia," and what not, the terms they have applied to these conditions, has no place in modern medicine. That there is tremendous need for such education is illustrated by the fact that a short time ago two patients were permitted to die from perforating duodenal ulcer within the shadow of a well-equipped hospital, while about the same time a patient with the same condition was removed from a train by a Pullman conductor and rushed to the hospital, where his life was saved. Surely we must not permit railroad men to become better diagnosticians than ourselves.

The principal factors in the success of the rural hospital are depending on the following: (1) a clearly defined need for a hospital in the community; (2) the construction of an adequate and well-equipped institution; (3) a sound financial basis; (4) a competent and efficient administrator who sees to the maintenance of high standards in the staff; (5) a broad, sensible policy, giving the hospital's executive full authority and responsibility, in which he has the complete support of the trustees; (6) thorough and scientific care of the sick; (7) individual investigation of the financial resources of all patients and discouragement of indiscriminating charities; (8) an efficient system of purchasing, so arranged under the direction of the institution's superintendent that he may be free to take advantage of all changes in price.

When these fundamental principles thoroughly enter the minds of our trustees, and the tremendous need of more and better hospitals in "up-the-state" Pennsylvania becomes apparent to our legislators and public-spirited philanthropists, then and not until then will our rural sections receive hospital service scientific and adequate, and in keeping with our boasted twentieth century medical progress.

What the Sisters Should Contribute to the Team-Work[1]

BY MOTHER M. ESPERANCE, St. Mary's Hospital, Minneapolis.

What should a sister contribute to the "team-work" of a hospital? This question I am supposed to answer—tentatively, of course, and by way of suggesting profitable discussion. Now, though the nature of team-work has been ably and clearly explained, still it will be an assurance for the present writer to state in her own way what she had in mind as team-work while preparing this short paper.

Ideal team-work has always existed among all our Catholic sisterhoods, and it is by these means—namely, united effort and hard hand-in-hand work—that, notwithstanding our many difficulties and almost insurmountable obstacles, we have accomplished so much. The expression "team-work" may call up to one who, like our sisters, is not familiar with popular literature a vague picture of two horses toiling up hill under the whip and tugging furiously and unevenly at an overloaded coal wagon. Certainly this is not the meaning we are to take, and indeed "team-work" in this sense would not serve as a useful illustration in our work. In the popular acceptance of the word, "team-work" is derived from the domain of sport, and particularly that of college games—the football gridiron, the baseball diamond, the running track; thence it has passed to other departments of life, notably business and industry. Nevertheless I intend to use the word as borrowed from the campus of the schools, because in this view it bears the connotation of intelligent aspiration and unselfishness, a generous willingness to

[1]Read at the meeting of the Catholic Hospital Association, Milwaukee, June 7-9, 1916.

train and strive together, with unmercenary outlook and with loyalty to school and fellow-members of the team; and then their team-work means submission to coach and trainer—it means the sacrificing of self for the success of the team and the surrender of individual display and the acclaim of the grand stand. Surely in this sense the word has an evident application to the team-work desirable in a Catholic hospital.

Indeed, we sisters need to bring into our service of the sick the inspiring cheerfulness of play, and for this purpose we ought to "get into the game" every hour, in successful competition with ourselves and our previous efforts. Like the university student, we are proud to belong to an institution that can call out and direct every ounce of unselfish energy, for truly our hospital is an alma mater in the education which it is constantly imparting to intellect and will; and, more than this, it is our career and a life-lasting opportunity. Are we not dedicated to the love of our neighbor? With the physician we are toiling every day and all the time for the healing of the sick, the least of whom Christ our Lord puts in His own place in the promise of everlasting reward. Then, with God's annointed priest, we are seeking to save the souls of men, and, though our ministry in this respect is indirect and secondary, it is frequent, and we know how effective it may be made, through Divine help, by prayer, unlimited kindness, and the word in season. Moreover, in all this organized endeavor we are aiming not at the mere alleviation of pain, but at the prolongation—one might say the restoration—of human life, which is the basis of all blessings, natural and supernatural.

Let us look at the practical side of our subject. As director of our team-work, the physician (the captain, as it were, in the game for health and life) claims the first place in our consideration. What is the sister's place respecting the physician in charge? It is, first of all, confidence in his skill—a confidence which she will tactfully encourage in the mind of the patient, and, secondly, an exact compliance with his orders. To make sure of such directions, she will insist that they be written and signed by the physician. In case orders are telephoned, they should be signed by the one who received them and by the physician on his next visit to the hospital. To further the work of our doctors should be second only to solicitude for our patients; consequently there should always be a perfect understanding between the attending physicians and the sisters, as a lack of this understanding may result in the lessening of good results, if not in positive failure.

We have heard it remarked that some sisters resent criticism made by physicians regarding the care of their patients. There are always two sides to be considered. How are these criticisms or suggestions for betterment made? Is it in the presence of patients and pupil nurses? There is always a proper time and place where such criticisms and suggestions would be and are gratefully received. No institution is perfect; some are far from it. In most institutions constructive fault-finding, which really means suggesting a better way in doing some one thing, will be welcomed if given in the right spirit, to the right person, at the right time. It is worthy of note that always the same few doctors have to cope with these little difficulties. How much easier for the success of the team if these difficulties could be minimized in place of exaggerated. Many physicians have the happy faculty of doing this, and if all could acquire that faculty, also the habit of cooperating and lending the assistance they could so easily and are well able to do, how much easier the work would be for all concerned. We must acknowledge there are times when criticism is deserved; and should not such criticism, in place of wounding, stimulate us to acquire greater efficiency? Hospital sisters have always done their work well, but within the past few years science has made rapid advances in all lines, and particularly in what pertains to prevention of disease and the care of the sick. As far as possible we should be ready to make use of the best and most practical modern methods. Have not some of us been a little slow in adopting the new methods in our work? The superintendents of some hospitals declare that, unless their hospital is richly endowed, they are unable to secure a capable head for each department, as the cost is prohibitive. This ought not to be a difficulty with us, as we have the material in our own communities; and, as we are resolved our hospitals shall be inferior to none, special advantages must be and are being given to those destined for such positions.

The sister's position as head nurse of a department does not merely mean sitting at a desk, making a few rounds with the doctors, or writing a few orders. It requires her to be constantly on the alert—to frequently visit the patients and take a personal interest in each. She should not only be kind, punctual, industrious, economical, and dignified, but should also instill these qualities in the pupil nurses. The sister is identified with the hospital more completely than any and all of her fellow-workers; yet she must not allow the recognition of this fact to lower in her own mind the importance and necessity of medical supervision. She is not a doctor of medicine, and must not admit the thought that her experience and intuitions can ever supplant the expert direction of a physician. As a sister is closer to the institution than others, she is naturally sensitive to professional criticism regarding the hospital. But even when a zealous physician, who is eager for ideal conditions, shows impatience over the material limitations of the house which never carries an endowment, but generally carries a mortgage, she will not show resentment nor relax in compliance with directions or interest in the case.

The sisters' team-work means also cooperation with the medical intern, who holds an important place in the present-day hospital. As he is a graduate physician, he is entitled to receive from other members of the team the full respect that is due to his professional status. During the period agreed on he is a resident of our house, and for the patients as well as the sisters and nurses there is relief in knowing that, whatever may happen, they have a trained physician within instant call. In return he finds an invaluable opportunity for practical training and special observation in the institutional treatment of diseases, so that we hospital sisters may rejoice in the thought that thus in a certain real sense our organized work presents graduate courses to able young physicians of character and promise. The intern is not the physician in charge, except in cases of emergency. Ordinarily he is the qualified assistant, whose duty it is to attend the directing physician in visits to the wards and private rooms, to follow up the latter's orders, and even to interpret them according to need. It goes without saying that in a sisters' hospital, just as well as in other similar institutions, he would seriously impair the team-work if he should lessen the patient's confidence in the other physician or seek to supplant him. The intern's cooperation has a notable value in certain special employments, such as x-ray examinations, the microscopic

analysis required in modern diagnosis, and assistance in the operating rooms.

Evidently it rests with the management to take thought and to seek expert advice in order to get the best use of our interns' services, especially as the lessening number of medical graduates cannot meet the demands (for interns) from an ever-increasing number of hospitals. In this outlook we sisters must not be less alert than others. By reason of our religious training we may check interest and enthusiasm by an undue severity on trifling displays of levity by these young men, or their lapses into the boisterousness of the undergraduate, yet this does not promote the most effective cooperation. Good-natured patience and persistent deference will be rewarded by the habitual gravity and the thoroughgoing sense of professional responsibility for which we look in a doctor of medicine. The intern may feel at times that there is something repressive and exacting in the discipline of a house managed by religious women. This drawback, if such it be, is, however, made up for by the experience he gains for practice later among patients who will prefer to be cared for in a sisters' hospital. He will easily come to realize that in no other establishment are conscientious work and fine professional courtesy more highly esteemed and more lastingly remembered.

The pupil nurse has a definite and prominent place in our organized teamwork. Without a nurses' school the modern hospital will not receive a high rating from medical associations, and, then, the reputation of the hospital depends in a large measure on the practical efficiency of such a training school; yet only by the use of the requisite means can we make this department a success—especially by competent supervision, graded instruction, the right kind of living conditions, well-managed stimulating discipline, and by good measure of kindly sympathy and discerning encouragement. Under direction the nurses do much of the hospital work; financially, however, the plan does not pay for itself even in a well-conducted school of nurses. Moreover, patients complain that they are not looked after by sisters as they had expected, but by young women—apprentices—who are practicing on them and who are frequently frivolous, inattentive, and gossipy. Nevertheless, the department of pupil nurses must be kept up. We shall need such assistance in our work. The increase in the number of sisters is not keeping pace with the multiplying of our hospital activities, and we can meet or prevent the complaints just indicated by systematic instruction and ordered supervision. These young women recruits can be made valuable auxiliaries, especially as they enter on their training of their own deliberate choice and possess strong incentive to industry and sustained effort in the hope of achieving an honorable and remunerative career as graduate nurses.

One point I should wish to emphasize—the sister deputed by the superior of the hospital to take charge of the nurses must have ability for practical management. She must not be content with making assignments and delivering orders. She must follow up direction, and bring the pupils to realize that their training is as exacting and systematically progressive as the training for credits or a degree in a business college or a professional school. Their employment is growing in importance and honor, as we can see from the position accorded to the visiting nurse in the organized sanitary crusades of the great cities. Now, this widening outlook only stresses the fine, high qualities of mind and heart that are looked for in a graduate nurse. I fear that we sisters do not sufficiently insist on the development of character in the training of pupil nurses. This is due in great part, perhaps, to the fact that we have not fully caught up with a condition of things which is comparatively new. If all these young women came from ideal homes, and possessed, with a fair share of mental culture, that training of the will which at least Catholic schools make so much of, there would be little call for emphasis on this phase of the subject; but in the face of present-day facts and social conditions we cannot presuppose that these beginners have developed the gentleness, patience, well-governed temper, the kindliness, true sympathy—yes, and the unswerving honesty—that are indispensable for the success of a graduate nurse. What physician will recommend a nurse who is not kind and soft-voiced, who gets sulky at her work or gives way to flings of temper? We ought to insist especially on professional reticence. The young nurse must be told pointedly and repeatedly that it is dishonorable and wrong to talk to patients about other patients, or to discuss hospital affairs and the diseases of patients with outside friends and the members of her family. The lack of such reticence can work much harm to the hospital and to her own prospects.

If we attach as much importance to character as to the all-absorbing curriculum, we must furnish the motive force by giving systematic encouragement to the spiritual development of our pupil nurses. Nor can this be left to haphazard, to good example, and to the pious tradition of the house. There must be definite lines of influence drawn with penetrating intelligence, and followed out by untiring patience and tactful discernment. The aim of such training is, of course, not the aim of the religious novitiate; it is such as will fit our pupil nurses for splendid womanhood in the world, and for success in a useful and honored calling. In promoting this rounded training we cannot fail to invigorate the teamwork of our hospitals.

For his priestly ministrations, the chaplain holds the place of highest honor and worth in the teamwork of a Catholic hospital. He stands for the patients' spiritual interests, which we sisters are eager to promote, and, as we believe that the soul is incomparably greater than the body, so we hope and pray and labor that the corporal works of mercy to which we are devoting our lives may be fruitful occasions for the higher and grander works of the spirit. Like Saints Cosmas and Damian, physicians and brothers, we seek to save the bodies of men, that we may help to save their souls for life eternal. Moreover, most, if not all, of our Catholic patients come to us by preference under the unexpressed agreement that their spiritual interests will be safeguarded. We know that soundness of mind is often dependent on soundness of body. We know also that the peace of soul which generally results from sacramental ministrations is a recognized help toward therapeutic success. In our cooperation with the reverend chaplain there must be, as in all human affairs, some little misunderstandings, but I have never known any want of good-will on the part of the sisters in furthering his exalted and privileged work.

In the team-work of the hospital the patient "plays center." He must be an active participant, and not simply a figure that is passive. After all, the game of recovery is his, and his will must be actively enlisted in winning the score. For him the distinctive advantage of the hospital is the ordered and effective direction, that does not tolerate his moods and whims, or the easy-going negligence of others. His cheerful, perfect compliance with this direction is his contribution to the team-work, which the sister must aim at securing. For this purpose she

must deal personally with the patient. She will not content herself with reports made by others, or a general and distant supervision. She ought to know all the patients placed under her care and to study them individually. Her words of encouragement will be as commands to call out his will to live and to get well, and his compliance with the physicians' treatment. Indeed, this is part of the hope he had in coming to our hospital—that he will be cheered and heartened by the charity and sympathy associated in his mind with the sisters' religious garb.

If the sisters have the spirit of religious life, they will work splendidly with members of their own community, and in this same spirit will be predisposed to cooperate heartily in the more general team-work of the hospital. We know from experience how generous and untiring the sisters are, showing by the kind of service rendered that their work is not merely an employment, but a grand opportunity of following cheerfully, exactly, and very closely in their Master's footsteps the way of self-sacrifice.

In conclusion, team-work is simply cooperation, an organized working together, that is active, steady, and intelligent. It means all this in the connotation of mental qualities and outlook indicated above, and on the sisters' part it means practically and in the concrete a working together with physician, intern, and nurse, with the patient, also with the reverend chaplain, and of course it manifestly presupposes harmonious cooperation among the sisters of the community; and, let us insist on it, this working together must have the eye of the intention, not on individual exploitation, but on resultant efficiency in the work of the hospital. In this spirit we shall be keen for improvement, and consequently quick to take correction or to learn even from inconsiderate critics as well as from skilled instructors, if only thereby we can help "win the game" for our team and "run up the score."

THE DIAGNOSIS OF HEART CASES

The Electrocardiagraph Is Necessary in Every Hospital—Installation Must Be Carefully Made by Trained Persons

BY ASA BACON, Superintendent Presbyterian Hospital, Chicago, and FRED M. SMITH, M. D., Electrocardiologist Presbyterian Hospital, Chicago.

To raise the standard of efficiency in a hospital it is necessary to install, from time to time, such new equipment as medical science has discovered and proved to be practical. The electrocardiagraph should be installed in every hospital as soon as it is possible to raise sufficient funds. This is something that will appeal to philanthropic people, if brought before them in an intelligent way.

The value of the electrocardiagraph is becoming well established. As an instrument of precision in the diagnosis of cardiac irregularities, where a correct diagnosis is very important from a standpoint of treatment, it has no equal. The time is coming when it will be installed in every modern hospital. It will become a department in the same way as has the x-ray and pathological laboratory.

The electrocardiagraph is an instrument by means of which the electrical reaction generated by the contraction of the heart muscle is registered on a photographic plate or film. Briefly, it is composed of an electromagnet, between the poles of which is suspended a very fine conducting fiber, measuring about 0.002 mm. in diameter. This fiber is magnified by microscopes and projected on the screen of a camera by an arc light. When a patient is put in circuit with the fiber, the latter is made to vibrate, and the vibration is registered on a moving plate or film. The tracing gives definite knowledge in regard to the contraction of auricles and ventricles, especially from the standpoint of type and their relationship to each other.

To operate the instrument, electrodes are attached to the patient. These electrodes are connected to the fiber by the way of a switchboard, which acts as a protection to the very delicate filament. The arc light is turned on and the fiber carefully focused on the camera screen; it is then sensitized to a point where, when 3 millivolts are thrown in the circuit there is a deflection of 30 mm. In order that all cardiagrams may be standardized, records are taken from three leads of the body. Lead 1 is the left and right arm; lead 2 the right arm and left leg; lead 3 the left arm and leg. These leads are employed universally in routine observation.

The electrocardiagraph is a very delicate instrument, as indicated by the fact that, when standardized, 3 millivolts

Fig. 1. Patient on third floor, prepared and ready for cardiagraph tracing. Nurse receiving orders from operator in basement.

cause a deflection of the fiber of 30 mm. It is therefore necessary that it be installed in a place as far remote as possible from outside currents, which, if present, often cause a vibration of the fiber which will seriously interfere with the obtaining of a correct, well-defined curve. To ward off these difficulties, the electrocardiagraph at the Presbyterian Hospital was installed in the basement, with a dark room connected for developing the photographic films.

It is sometimes inconvenient and often impossible to bring all patients to the machine for the taking of electrocardiagrams; stations are therefore established at convenient places throughout the hospital, where the patients can be attached to the machine without removing them from their beds, when their condition makes this desirable.

These stations are connected to the electrocardiagraph by wires, run either on the outside or inside of the building. Here again the greatest precaution must be used in avoiding other currents by proper insulation. At the Presbyterian Hospital the wires are run on the outside of the building, encased in lead, outside of which is galvanized iron casing, heavily painted on the inside. This method of

insulation gives practically absolute protection from outside influences.

It is necessary that the operator have means of communication with the person in charge of the patient at the station. The patient must be attached correctly and be warned to be absolutely still and relaxed while the record

Fig. 2. Dr. Smith operating the electrocardiagraph machine in the basement.

is being taken. To furnish these facilities, telephones are established at each station and in the room of the operator. The system is so arranged at the Presbyterian Hospital that the operator can remove the receiver, push a button and call any station that he chooses.

To illustrate the value of the electrocardiagraph more in detail: A patient comes into the hospital with marked

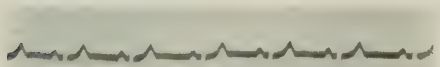

Fig. 3. Tracing from normal heart, lead II.

irregular heart. It is very difficult to determine, by the ordinary means of examination, whether the irregularity is due to extrasystoles or auricular fibrillation. In the one, namely, extrasystole, treatment by means of digitalis is absolutely contraindicated, while in the other, namely, auricular fibrillation, digitalis is the treatment employed.

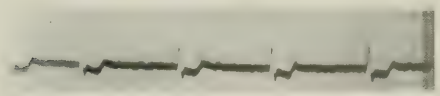

Fig. 4. Auricular fibrillation and myocarditis, lead II.

Auricular fibrillation is the cardiac condition, probably above all others, which is especially amenable to the effects of digitalis. The diagnosis between these two conditions can be absolutely established, thereby giving the patient the benefit of the best facilities of diagnosis in this line.

The installation of the apparatus is a highly technical piece of work that may not be undertaken except by a trained person; the apparatus is composed of a number of pieces of the finest scientific mechanism which must be correlated in assembling. One of the younger members of the medical staff, who is to be charged with its operation, may become qualified after a time spent in a hospital where the apparatus is in use, or a specially trained mechanician may be employed to install and operate it.

NURSING THE INSANE IN CHINA

Occupation a Factor in Treatment—Kindness Shown to Patients, With No Instance of Abuse

There are but three or four institutions in China where the insane are treated, writes Miss H. J. Stockton, David Gregg Hospital, Canton, in the *China Medical Journal*. One institution in Peking, under native control and management, can hardly be called a hospital, being simply a place where the insane may be taken, but where no real nursing is done. The second is a ward of about thirty beds in connection with a hospital in Foochow. Insane patients are also received in a hospital in Soochow. The Refuge for the Insane in Canton cares for 500 patients, men and women. The cottage plan is employed, each cottage containing usually a ward of eighteen beds and two small wards for excited patients.

Occupation is an important feature of the work. The women patients make and mend clothing, clean rooms, spin thread, etc. The men work in the kitchen, carry food, clean, paint, whitewash, etc. The continuous bath is used for excited patients. It is said that no instance of roughness or ill treatment of patients has been known. Miss Stockton remarks that, considering the treatment usually accorded to this class of patients, the kindness and consideration shown here is remarkable. Very little restraint is used, and that only in the most necessary cases.

There are at present only two foreign doctors and the wife of the founder in charge of the institution, though a third doctor and a nurse are expected to join the staff soon.

POTATOES A LUXURY IN HOSPITALS

Rice, Hominy, Cornmeal, Beans, and Macaroni Substituted in One Pennsylvania Institution

The Allentown Hospital, Allentown, Pa., has cut in half the normal ration of potatoes, which the institution cannot afford to buy at the present high prices, according to newspaper reports. At the Homeopathic State Hospital, Rittersville, Pa., which formerly consumed 60 bushels a week, potatoes have been cut out entirely and substitutes introduced in the shape of rice, hominy, cornmeal, beans, scrapple, macaroni, and spaghetti.

In all of Allentown's charitable institutions the supply of potatoes is being conserved to the utmost, and when that supply is exhausted none will be bought until the prices fall. At the jail and the county home the potato fare is being cut to the utmost.

Public Health Nursing Course at Battle Creek

The Battle Creek Sanitarium Hospital Training School for Nurses has added to its curriculum a course of lectures and practical service in public health nursing. Lectures and instruction will be given by persons who have had special opportunities and experience in antituberculosis nursing, baby welfare work, prenatal care, rural and city district nursing, school nursing, institutional, industrial and welfare work, dispensary work for both inpatients and outpatients, mothers' and children's clubs, etc.

DEPARTMENT OF NURSING

Conducted by MISS ANNIE W. GOODRICH.
Teachers' College, Columbia University, New York City.

Please address items of news and inquiries regarding Department of Nursing to the editor of this department, Teachers' College, Columbia University, New York City.

Inspection of Training Schools

BY BERTHA HARMER, Teachers College, Columbia University.

The validity of any system must be weighed in terms of underlying principles. The purpose of this paper is, therefore, an attempt to formulate some of the essential elements which may guide, direct, and bring to a successful issue the inspection of our schools. This issue is the standardization of training schools for nurses.

As the problem is an educational one, it would seem logical to turn for suggestions to the numerous surveys made of other schools. These surveys have been of immense educational value. While it is stated, however, that "much of the success of any school system depends on the quality of supervision," and that "expert constructive supervision is the most potent force," acting "as a pressure on everyone to become stronger, more useful and efficient," in the judgment of the survey staff, supervision has been one of the weakest phases of the school system.

The reasons advanced for this lack of efficiency are: (1) that the inspectors have had no definite preparation for this enlarged field, being selected for their personal ability and outstanding success as teachers; (2) that the aim has been too narrow; (3) that too little time has been devoted to supervision and that the tests are too superficial; (4) that too little thought has been given to definite concerted methods and recording of results; (5) that little time has been devoted to free discussion and little criticism of a constructive nature advanced. The shortcomings rest with the system and not with the supervisors. Numerous instances are quoted in which supervisors of unusual ability and vigor have been able to surmount the difficulties.

There can be no purpose in recording these weaknesses save for the suggestions they offer in building up a program insuring the growth and development of our profession. Dr. Strayer points the way in the following quotation:

"Surveys, if they are to serve any useful purpose in education, must be constructive. We judge the work of a supervisor by the growth and development of those who are supervised. In like manner, the survey, as a supplementary agency, is to be judged, not in terms of the weaknesses or deficiencies which it discovers, but rather by means of the suggestions for development and improvement which are contained in it. It is necessary, of course, to discover wherein a school system is weak before any adequate remedies may be suggested. But the survey which is concerned mainly with a statement of deficiencies cannot accomplish much in the way of improving the work of teachers or administrative officers, and will probably result in destroying that public confidence which is so essential for the development of a strong school system."

This inspector, then, is to be an organizer, an administrator, an educator—a teacher of teachers. She is to be that "potent force" bringing the knowledge, enthusiasm and inspiration which is to make everyone "stronger, more useful and efficient." She enters as the specialist with wider professional knowledge as the result of her experience and with the impersonal, unbiased attitude of the outsider. She must be able to put her finger on each weak spot and suggest "a cure for every ill." She is like the doctor who carefully studies his patient in the light of the past and present; who studies and weighs each symptom in relation to the other and with the whole, and on this analysis prescribes the treatment. To do this she must know the history of the hospital, its organization and administration; she must know good equipment from bad; she must understand hospital construction in all its phases of size, relation of wards, the lighting, heating, plumbing, ventilation, and all those phases upon which the welfare of the patient and the efficiency of the staff largely depend. She must understand teaching methods and teaching problems. In a word, she must be able to set standards and suggest practical means toward their attainment.

Inspection of our schools, therefore, to be rational and constructive, must be conducted by one with unusual abilities, both natural and acquired. She must possess not only high ideals, but an organized knowledge of relative facts, keen judgment and sound common sense. An inspector must be able to distinguish between essentials and non-essentials, between cause and effect, between temporary and permanent values. She should be familiar with and take an active interest in nursing organizations and activities. Not only should she be familiar with the numerous fields opening up to nurses; she should also see them in the light of the past history of nursing and in their relation to the trend of development in other social, economic and educational problems.

Upon this ability to study the hospital and training school, not as isolated units but as links in a great educational system, depends the constructive value of inspection. This view is sometimes lost sight of by the superintendent, who is burdened by a host of details, important and unimportant. Here, perhaps, is where inspection is most needed. The inspector comes to broaden the horizon, to stimulate and inspire with new ideas and undimmed vision of the goal—the standardization of training schools. If this is to be accomplished, it must be through the sympathy and cooperation of the public.

How is this to be accomplished? The inspector may accomplish a great deal in public addresses by informing the public of the relation of the nurse to the community and the responsibility of the state toward her education. But this is not sufficient. Education is a slow, gradual, continuous process. The inspector must create this concept in the mind of the superintendent and through her in the minds of pupils and graduate nurses. She must stimulate a desire for growth and cooperation and suggest means by which this desire may become effective in fact. In the following means suggested by the inspector all may participate.

A community is not going to be interested in something of which it knows little, neither is it going to be concerned with a problem not felt to be vital to itself. At present it is safe to say that few people in a community are conscious that the training of the nurse is a problem. Training schools for nurses are not found listed with any other educational institution, and therefore receive no support for

educational purposes. The first step, then, should be to interest the public, to make laymen feel that the education of the nurse is a problem and that it is their problem. This cannot be accomplished through scientific journals, but must come to all classes through the usual avenues of approach—the daily papers and popular magazines. Superintendents may complain that they are too busy to devote their time to writing articles for publication. The "fascination of authorship," that peculiar, elusive, tangible form of "lead poisoning" of which Oliver W. Holmes complained, is, indeed, not a common complaint. Nurses who supplement their training by advanced study find any form of self-expression a most difficult task. Pupil nurses, therefore, in whom a desire to serve and cooperate has been awakened, could be encouraged to write on selected topics with a great deal of profit to themselves and others. This would stimulate an interest in their profession, in the various fields of nursing, in different types of humanity, and awaken that social knowledge and interest which is so essential to their efficiency. Topics could be carefully selected by the instructor according to the pupil's ability and experience, or chosen by the pupil herself and sanctioned by the instructor. This activity would promote self-expression, originality, initiative, the spirit of cooperation, the ability for leadership—factors felt to be sadly lacking in our present system of education. The system in any school then would be judged not only by class-room inspection, but also by the achievements of those trained by that system. New life then should flow from the inspector to the superintendent, to the members of her staff, through the class-room instruction to the pupils, and through the pupils to the public, bringing a rich return in interest, cooperation and support.

The aim of the inspection, again, is to standardize training schools for nurses—to set standards and provide practical means toward attaining them. The purpose is to put nursing on a basis worthy of professional status, so that the word "nurse" will mean not merely one who is engaged in the care of the sick, but one, and only one, who has mastered the fundamental principles and technic of nursing. Again, it is futile to talk of standardization except by educating the public and gaining its support. A study of the registration laws in the various states shows this clearly. Perhaps it is equally necessary to broaden our own field of knowledge and mental outlook. It is of the utmost importance that we all know toward what we are working and what we are expected to do. A wise inspector, therefore, will constantly seek to keep before the hospital staff and boards of trustees the conditions and courses of study necessary to the education of the nurse. She will also seek to acquaint superintendents with the meaning and purpose of records kept. With this in view, therefore, it is suggested that each superintendent be provided with the cards or forms used by the inspector and accepted by the state. This will focus her attention on the whole content, the breadth and scope of nursing education, and should insure a more complete, organized report, leaving more time for discussion. This report may or may not be filled in by the superintendent, but in any case is for her exclusive use and forms no part in the official inspection. It serves as a stimulating guide in mapping out her own program. I am aware that this proposal is open to criticism. Several superintendents to whom the suggestion was made objected on the ground that it would enable the superintendent so disposed to prepare a fictitious report. It would, indeed, make her aware of deficiencies, and it may seem unnatural and even unreasonable to expect a superintendent of a so-called training school to pass her own death sentence. Perhaps, after all, such a fictitious report might be the surest way of doing this. A knowledge of deficiencies might also enable her to overcome them. To detect errors and weaknesses is the negative side of our program; to stimulate and inspire, to build up a sense of responsibility and a composite picture in the minds of all alike, is the positive side. The unanimity of aim, the cooperation it should promote, outbalances any possible misuse of such information.

Standardization of schools involves the requirement of a definite preliminary education, an approximate uniformity in the courses of study followed as to content and the hours devoted to them. It involves an approximate uniformity in laboratory experience; that is, experience in the wards and the hours devoted to each phase of nursing. Most essential is a uniform system of recording facts and uniform state examinations, both practical and theoretical.

Too much emphasis cannot be laid upon raising the standard of preliminary preparation. This is fundamental to a sound professional education. Since the requirement of one year of college work preparatory to entering the field of medicine, medical boards report a better class of students, a higher grade of examination papers, and fewer failures. In our own schools the system cannot always be measured by the product. In schools which have not progressed as regards the content of subject-matter and teaching facilities, but in which the preliminary requirements are high, the product is frequently better than in those schools which have the best equipment, but are unable to secure students with a liberal education. In this question, however, it is necessary to go slowly. The inspector can see, at least, that the state requirements are rigidly met.

A study of the curriculums of various training schools shows marked variations, not so much in the subjects studied as in the time devoted to each. A national curriculum is about to be issued, giving lists of reference books and outlines of all subjects to be taught. This will represent the theoretical course thought to be ideal at our present stage of development—a goal, but not the requirement of all schools. This book should form part of the equipment of the inspector. Discussion of its advantages would be suggestive even though the day of its complete realization be remote. Also in class-room facilities and equipment our schools are far from being standardized, and it is not always in the wealthiest schools that modern standards have been adopted. Plans of class-rooms, lists of equipment, with the addresses of firms where purchasable, a pattern for homemade dolls, illustrations of simple, inexpensive anatomical charts which may be made by the instructor, are all suggestive in solving this very practical problem. Public libraries, free pamphlets, museums, specimens from the pathological building or from the butchers—the use of all these is to be recommended. The services of outside specialists also may often be obtained for lectures on topics related to nursing.

Judging from personal experience and subsequent visits to numerous training schools, it is evident that a large amount of easily available clinical material is being overlooked for want of oversight. Experience in pediatrics, in orthopedics, in dispensaries and diet kitchens, affiliation with hospitals for the mental and nervous or for contagious diseases, frequently forms no part in the education of the nurse. Even in large hospitals offering every facility, the training of the nurse is often not well balanced. In assigning nurses to ward duty, very often some department is lost in the shuffle, so that the nurse at the

completion of her course finds herself with little or no experience in one or more branches.

The College of Engineering in Cincinnati, to avoid such irregularities, has prepared a simple chart, mapping out the path each and every student should follow in his laboratory experience. A chart is kept for each student, indicating this path, and in addition a second line indicates the path actually followed by the student, with explanations for any deviations from the prescribed course. Their conditions parallel ours. In the engineering profession the students receive their theoretical studies in the college, their laboratory experience in the shops. Here they acquire a high degree of technical skill in handling tools and solving problems. The nurse receives her theoretical knowledge in the class-room, mastering the underlying principles of nursing. Her laboratory is the ward, where she also must acquire a high degree of technical skill and first-hand knowledge of disease. A similar chart, prepared through the combined efforts of the inspector and superintendents, would help to eliminate many existing irregularities. Putting facts down on paper is one of the surest ways of clarifying our ideas and focusing the attention on essentials. Our experience in keeping temperature charts shows the value of a graphic representation of conditions.

Another point in which inspection shows our schools to vary is in the number of hours per week spent by nurses in actual nursing. An increasing number of schools has been able to introduce the forty-eight hour per week system; others, no doubt, could be induced to adopt this method if it were presented to them as possible and practical. It might hasten the day of uniformity in this matter if the inspector carried, in addition to a list of schools where this system was successful, tentative plans for hospitals of various sizes.

The majority of our schools are still departments of hospitals. A few are now departments of universities, the hospital serving as the laboratory for both nurse and medical student. The advantages of the latter arrangement are self-evident. If the training school is to remain closely associated with the hospital (and it is desirable that it should), but not one of its departments, it will be necessary to have accurate accounts of its maintenance. A uniform system of accounting should, therefore, be adopted in all training schools. This system should be simple, accurate, complete, and uniform. The understanding has been that the expense for lodging, instruction, etc., of the nurse, balanced the value of her services rendered. What are the facts according to business methods of accounting? The installation of such a uniform system would require the combined efforts of the inspector and superintendents.

Nursing is a profession. It is nevertheless true that the superintendent of a training school is in the business of educating nurses. She it is who formulates and directs its policies. Like every business manager, she must have and has not only a definite program for today and tomorrow, but also a tentative program for the coming year. The inspection with the inspector may be looked on as the official stock-taking. I should like to quote Dean Russell of Teachers College on this point. He says:

"The business man takes account of stock once a year in order to ascertain his financial standing. We who are engaged in professional pursuits would do well to follow the business man's example. In our case, however, the reckoning is not easily reduced to dollars and cents. Nevertheless, the present worth of what we possess, our abilities, our tools and instruments, our aims and our purposes, can be evaluated in terms of effort and accomplishment. We have a stock in trade that is valuable precisely to the extent that we can use it efficiently in the service of some worthy end. Our ability to use what we have in a way to meet the approval of those for whom we work fixes the value of our professional capital."

The business man, on determining his financial standing, does not close up his business, but invests his capital so as to produce the greatest profit and the finest product. The product of the training school should be the socially efficient nurse. A program on paper may not be worth the paper it is written on, but a tentative program on paper, backed up by earnest purpose in the mind of the director, will go a long way toward accomplishing a definite result. This applies equally to the inspector who starts out to inspect a school. Would it not be wise, therefore, to ask each superintendent to write out a tentative program for the following year? After the inspection and discussion, if this plan still seemed feasible, one copy should remain with the superintendent and one should be filed away with the inspector's report. The inspection the following year would show to what extent this program had been carried out and wherein further suggestions and support were needed.

No business (or profession) can be at a standstill. It must show either a debit or a credit balance. A business which continues to show a debit balance promptly winds up its affairs. In a business the debit balance is in dollars and cents—in schools of nursing the debit balance is the inefficient nurse. The process of oxidation, a process necessary to the growth of all active living things, is brought about by either adding a positive valence or removing a negative valence.

With the hurry, worry, daily disappointments, and monotony of routine, we are all apt to sink into a rut and to lose sight of the goal. "Follow-up work," therefore, forms an essential part of any program of inspection. For "Behold, a sower went forth to sow, and when he sowed, some seeds fell by the wayside, and the fowls came and devoured them up; some fell upon stony places where they had not much earth; and forthwith they sprung up, because they had no deepness of earth: and when the sun was up they were scorched; and because they had no root, they withered away. And some fell among thorns, and the thorns sprung up and choked them. But others fell into good ground, and brought forth fruit." The inspector comes to measure the harvest, to reveal new developments and suggest changes necessary to meet the needs of our rapidly growing profession.

It has been said that the aim of inspection is to standardize training schools for nurses. In a rapidly growing profession it is essential that the standards which determine our actions be common to all—that we carry only one banner. Today, however, there are conflicting standards, because they are frequently founded, not upon a scientific basis, but upon sentiment and opinion. Opinions are usually based upon the limited experience of the individual. To round our efforts into one channel, to make our standards sound, they must be founded upon a scientific basis. This scientific basis is inspection—careful observation and collection of facts; expert analysis of data and presentation of conditions in their proper perspectives and relationships. Inspection is our searchlight, which not only shows us conditions as they are, but also searches out the past to tell us why they are so and throws light on the path before us. The conclusions drawn from these statistical data should determine our standards and the methods by which we must attain them.

Some of the points upon which opinions differ are: the

control of the school, the preliminary educational requirements of the nurse, the number of hours to be spent per week in actual nursing, and the amount of theoretical knowledge necessary. We have schools which are departments of universities, others which are departments of hospitals; schools which require four years' high-school education, others which require only one year of high school; schools with a definite preliminary course, definite curriculum, qualified instructors and teaching facilities, others with none of these; schools in which the students pay for their tuition, others which pay students for their services; schools which work on the forty-eight hour per week system with vacation of a month yearly, others which work on the sixty or seventy hour schedule with two weeks' vacation yearly. To check up results of these varying conditions, we have the state board examinations, but we have no statistics showing a comparison of the results, either for the schools in different states under different laws or for schools in one state controlled by the same law. Again, the state board examination tells only half the story. Into what fields do the graduates from these various schools enter? Is the woman with a superior education better able to meet the demands in these fields for which the present hospital training does not prepare one? We have no statistics to show. Again, what relation have housing, recreation, hours on duty, length of vacations, to the amount of sickness, to failures, to the ideals and mental outlook of the nurse and to her general social efficiency? Again, what is the relation between all these conditions and the supply and demand? We have no statistics to show.

Inspection, recording, and comparison of results in tabulated or graphic form must furnish these facts. We must remember that statistics do not improve, like wine, with age, and that they are useful only to guide and direct our actions.

It has been said that three-fourths of the knowledge a man brings back from his travels is what he already possessed at the outset. The same may be said of the inspector. The success of the inspection largely depends upon the amount of time and thought previously devoted to the preparation and organization of questions and the information desired. It is encouraging to note that a number of states have prepared such forms. These, however, while excellent, are not uniform, and so would make comparisons on a national basis difficult. It has been suggested that a set of cards be prepared which would serve as the "case record" of the individual training school for a period of five years; that the schools be graded according to these records and the records filed accordingly; that the records be uniform for all training schools so that a national program may be based upon a study of every hospital rather than upon the study of a few cases. The application of the statistical method is to enlarge the experience of the individual by giving him a bird's-eye view of the whole problem.

It is inspiring to recall that in adopting this method we are following in the footsteps of our founder, Florence Nightingale, that "passionate statistician." It was through this method of attack alone that she was able to bring about those radical reforms in social conditions, in sanitation, in nursing in military and civic hospitals which have made her name famous and revered for all time. Perhaps it is even more pertinent and stimulating to note that today this method forms the basis of action in securing legislation in the great preventive health movement, a movement with which we are so intimately associated.

Inspection, then, of training schools, to be constructive and scientific, demands:

1. A qualified inspector.
2. A broad democratic aim.
3. Community cooperation.
4. Observation and recording conditions—the "case record."
5. Discussion, suggestions, and a fresh start.
6. "Follow-up" work.
7. Analysis, presentation, and comparison of data collected from all sources upon which to base conclusions.
8. Experimentation—conclusions in action with systematic checking up of results.

The Annual Convention of the Three National Nursing Organizations

The annual convention of the three national nursing organizations will be held at the Bellevue-Stratford Hotel, Philadelphia, from Thursday, April 26, to Wednesday, May 2, inclusive. This will be the twenty-third anniversary of the National League of Nursing Education, the twentieth of the American Nurses' Association, and the fifth of the National Organization for Public Health Nursing.

The program promises to be rich and varied and to present some unusual features. The program committee, composed of members of the three organizations, has provided an unusual number of joint sessions, at which the subject dealt with will be presented from the standpoint of each organization. The education of the nurse, the public demands on the nurse and the way in which these demands are to be met, the rapidly developing health centers, the relation of records to vital statistics, the status and training of attendants—all these are questions which will be considered and in which nurses in every field are mutually concerned. The discussions of the papers presented will take place at the round tables, to follow the general meeting immediately, except in two instances, in which the program will be limited to two papers. This arrangement will permit of a comparison of the two methods.

At the opening session on Thursday evening the convention will be addressed by Mr. Thomas Mott Osborne, honorary president of the National Committee on Prisons. The plan of the committee on social hygiene of the prisons, a subcommittee of the national committee, for the medical examination, treatment, and disposition of the prisoners—a plan which is already being put into effect in Sing Sing Prison—is one in which every member of the nursing profession will be interested, and concerning which she should be informed.

Health insurance is the subject to be presented at the second evening session. Health insurance laws are now being considered by the legislators of several states. The subject is one in which nurses are deeply concerned, and a committee was appointed by the joint boards of directors in January to study the question carefully and to report at this convention.

Another evening session will be devoted to the Red Cross Service. The recent rapid development of this service will make this meeting one of deepest interest.

An advance program is to be issued and can be obtained from the three secretaries: Miss Katharine DeWitt, 211 Westminster Road, Rochester, N. Y.; Miss Effie Taylor, Johns Hopkins Hospital, Baltimore, Md.; and Miss Ella Phillips Crandall, 600 Lexington Ave., New York.

Detailed information concerning the hotel accommodations and transportation will be found in the March and April numbers of the *American Journal of Nursing*.

DEPARTMENT OF DIETETICS

Conducted by MISS LULU GRAVES.
Dietitian of Lakeside Hospital, Cleveland, Ohio.

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Lakeside Hospital, Cleveland, Ohio.

The Problems of the Dietitian and Her Relation to the Hospital and the Training School

BY A. T. ATWOOD, B. S., Dietitian Johns Hopkins Hospital, Baltimore.

The problems of the relation of the dietitian to the hospital and the training school are of comparatively recent date. Ten or fifteen years ago only a few hospitals in the country had a specially trained woman in charge of the diets. To be sure, every hospital had a housekeeper or someone who was responsible for producing three meals a day, but she was a woman qualified for the position only by experience and what natural attributes she might possess. Very often she had previously been a satisfactory cook or a capable servant in some other capacity, with a sufficiently forceful personality to dominate others with whom she worked. So long as the hospital dealt with this type of woman, the problems of her relation and value to the institution were comparatively simple, but there came a time when the superintendents of training schools realized the necessity of having in these positions women of sufficient intelligence and education to teach their nurses as well as to serve the hospital more efficiently in the supervision of food preparation.

As the trained dietitian has come into existence, and as year by year the standard of educational preparation for such work has been raised, the question of what her sphere of usefulness ought to be has become more complex. It is now not the mere matter of preparing three meals a day, but (1) of preparing these meals for three or four classes of individuals in normal health, all of whose occupations and food requirements differ, due consideration of which should be made; and (2) of preparing meals for the patients of the hospital, both private and public ward, whose diets may be as varied as their number. This in the large hospitals, where the census varies from 1,000 to 1,500 people, is a heavy task, especially if experimental work in nutrition is being done, which calls for an unlimited number of special diets. Besides these things, whether she does the actual buying or not, she must have a thorough practical knowledge of raw foods and staple manufactured articles, together with their relative values from the standpoints of utility, availability, and price. In smaller hospitals she is often asked to assume the housekeeping of the entire institution, the management of all servants, and even the supervision of the laundry. Then, of very great importance is her relation to the training school as instructor of the nurses in their theoretical work in foods and nutrition and in practical cookery.

There is little doubt that in many cases the relation of the dietitian to the hospital is not in all respects what is most desirable. There is much to be said on both sides. The hospital has not called for the best development of the dietitian, nor has the dietitian, *in all cases*, prepared herself fully, from the hospital standpoint, for the work she undertakes to do. It is a perplexing question as to what the readjustment should be.

At present there are hundreds of *so-called* dietitians in various kinds of institutions in the country; but there is such a difference in the requirements of the institutions, as well as in the preparation of the women filling the positions, that the term "dietitian" does not convey a very definite meaning to the mind. We need not only more definite requirements on the part of the institution, but also a better standard of qualifications and preparation in schools training women for this work. The lack of uniform, practical, and adequate training for institutional work on the part of many domestic science schools are points realized by the dietitians themselves, and are at present objects of an organized effort on their part to formulate suggestions as to the ways in which such training can be made to prepare them better to handle the problems of an institution. Some schools of good rank have heretofore considered that a dietitian's training may be less rigid or more abbreviated than that of their graduates who will teach cookery in schools, requiring two years of training for the latter class and only one year of training for the former.

It is quite probably due to this lack of appreciation by many schools of the amount and nature of the work required of a dietitian, and to the placing of poorly prepared women in the positions, that much just criticism has been heaped on dietitians as a class. At least two years of strictly professional training, based on a high requirement of previous academic courses, is no more than adequate to fit a woman to work out her own success in this line, and it does take hard work, application, and perseverance, for she can be of very little value to the hospital when she first receives her diploma from even the best school. Considerable actual experience in the hospital must follow before she can realize the meaning of the work before her. Personally, I believe that a certain amount of her training should be received in an environment similar to the one where she will make use of it.

In this way pupil dietitian courses which are being offered by various hospitals to graduates of accredited domestic science and household arts schools are proving valuable aids. These are excellent in principle, and, when they are given under wise supervision, in surroundings of good practical working conditions, form an exceedingly desirable training for women who wish to do future hospital work.

Graduates are sometimes reluctant to give time for post-graduate training courses. These seem especially irksome to the new graduate because so many hospitals are willing to accept as workers anyone calling herself a dietitian without careful examination as to the thoroughness of her training and her general qualifications for the position. Of course, even a partially trained woman is better than one with no training, but, if we are looking for a solution of some of the difficulties which at present exist, an adequately trained woman is a fundamental requirement. Also many graduates fail to see that ultimately it will be to their advantage to serve a somewhat tedious apprenticeship as an assistant dietitian before assuming the full responsibility of the work.

It may not be amiss to mention some of the ways in which dietitians have failed to meet the requirements of the hospital. First, I believe it requires an older woman than for other fields open to domestic science graduates. As her duties must be largely of an executive nature, she should have learned by experience wise methods of controlling situations and dealing with people. The training of a dietitian gives much less opportunity for the development of executive ability than does a nurse's training. Graduates of even the best domestic science schools are usually deficient in ability to plan and manage work, and especially in ability to direct the work of others. In a nurse's training these are considered points of great importance, and from her first year in the hospital until she graduates she is constantly being called on to show some nurse who is her junior how certain things should be done, as well as to direct the work of servants upon the wards.

Probably one of the criticisms most frequently made by the hospital on the dietitian's work is her lack of housekeeping ability. She may have a great fund of knowledge on the subjects of foods and nutrition, and be quite helpless when it comes to attaining a fair standard of housekeeping cleanliness with an inexperienced maid. A dietitian must learn this for herself after graduation, which necessitates some years of experience. It would seem very desirable if domestic science schools would devise ways for incorporating into their courses more opportunity for experience of this kind.

A nurse's training also tends to develop a greater feeling of personal responsibility about her work and a more cheerful sacrifice of personal comfort where her duty demands it. This is due, of course, to the serious nature of her work. A dietitian usually has to acquire this after coming into the hospital environment. Another point which our schools giving courses in institutional management might emphasize even more than they do at present is the appreciation of promptness, neatness, and definite routine as essentials in accomplishing a large piece of work.

It is unfortunately true that a majority of the best equipped and most ambitious domestic science graduates are not willing to take up hospital work. Realizing that it does possess many desirable features, I have been interested to find out on what the objections are based. I have discussed it with many domestic science graduates, as well as with instructors and directors of schools, and the reasons given are mainly three—long hours, comparatively small salaries, and the isolated position often held by the dietitian in the hospital.

Probably the long hours on duty would seem less formidable if there were sufficient compensations in other ways. The best hospital salaries do not compare favorably with the best of those paid to women at the head of domestic science departments in schools and colleges, and when, in addition, we consider that a woman in general educational work is entirely free on Sundays, with comparatively few duties on Saturday, we must admit that hospital work does not appear wholly desirable.

Probably of the reasons given, the third has as great an effect as any on the really enthusiastic, conscientious worker. It is a discouraging situation for a woman to find herself in an environment where she realizes that she is an important factor in the working organization and yet receives comparatively little personal consideration. That we know this condition does not prevail in all hospitals does not alter the fact that this is the case in some, and in these the dietitian is largely thrown on her own resources when she is off duty. I know from personal experience that the dietitian's position in the hospital may be made a very agreeable one. That it is not always so quite possibly is more the result of thoughtlessness than through any intention of neglect. Is it not possible that some improvement in these lines also may be worth considering as a harmonizing factor in the present situation?

When the dietitian is responsible for teaching nurses, she should possess not only the qualifications already mentioned, but numerous additional ones which are equally important. I think a woman should be at least 25 years old, as otherwise she works at a disadvantage to herself and will seldom have developed the ability or the good judgment to act as a director of nurses' work. There is no doubt that the full normal course training for teachers is necessary for this position, and the course should be of such grade as to have included or required as prerequisites thorough work in physics, chemistry, and physiology. In addition to this, she can be of vastly more use if her academic work has been such as to give her a broad view of education in general lines. She may have many nurses in her classes with college degrees, and it will be to her advantage if her own education has not followed too closely the technical lines of her major subject.

She should have had sufficient previous experience to make her methods of teaching and of dealing with people actually her own. Superficial class-room experience or theories from her note-book on teaching methods are inadequate. This does not mean that her ideas or methods are more valuable than others, but only that they are probably more in proportion to her working ability. It is seldom that persons can present convincingly to others what they have not had personal experience with, and they can most efficiently put into practice what they have planned in every detail.

Teaching practical cooking to nurses differs from teaching it under other conditions. It is too important to admit of uncertain results. In ordinary school work the chief object is the training of the pupil. It is possible that even experimental work on the part of the pupil may be desirable, leaving her to learn by her catastrophes the best method to follow in the future. In the hospital we must always have successful results if the food is being prepared for patients, which is usually the case unless all the teaching is done in the class room by the laboratory method.

As to the subject-matter and methods used in teaching, much depends on the individual hospital, and especially on the length of time devoted to it in the training school curriculum. If the instruction is distributed through the course, the plan should be different from when it is all given in the preparatory term. Logically, both theoretical and practical work given in the first year should bear definitely on the work which the nurses will do in the hospital, as well as being the foundation for advanced work. That given in the later years of the course might well be that which they may use after graduation when in charge of wards, on private duty, or in district nursing work. The work given to the preparatory class should be very carefully planned to coincide as much as possible with general hospital methods and requirements.

The work room must not be regarded simply as a kitchen, but as a laboratory where diets used in the treatment of patients are prepared. Exactness and cleanliness are of more importance than under ordinary conditions. If a large amount of work is to be done, the value of promptness, neatness, and routine as time savers should be emphasized. Every utensil should have special uses and be employed for no other purposes, since this is the general custom throughout the hospital. Unvarying rou-

tine is of great importance wherever a large amount of work is to be done with many people, each contributing a share.

The theory of "development of individuality," which is stressed in the training of all teachers, is the basis of the experimental method of work which is in vogue in many public schools. Such work requires very close observation by the teacher, and, when finished, very critical discussion with the pupil in order that she may realize in what ways it could have been better. Its chief value lies in its disciplinary effect on the pupil and not in the production of accurate results.

When applied to the work of probationers, it is capable of misinterpretation and serious misuse. It is undesirable to leave them with indefinite directions on the basis that they should be allowed to work out things for themselves. The special faults resulting are that if the instructor is busy and the results are passably good, generally the work is accepted without having its imperfect features made sufficiently prominent to the pupil. In this way we have a lack of exactness in the result, frequently a loss of time and effort on the part of the pupil, and bad working habits established.

One of the most desirable qualities for the teacher to possess is the ability to make her subject interesting. To many probationers who are ignorant of household affairs the thought of work in cookery is that of a wholly disagreeable task, but if the teacher is enthusiastic about her work, has a real interest in her pupils, and has a sufficiently wide range of information with which to explain the constantly arising questions, and to make attractive apparently commonplace drudgery, she can usually succeed in getting a certain amount of response from even the least promising of her class.

I am a firm believer in the method of teaching practical work by working with the pupils, showing by actual example how the thing can be accomplished. Nothing wins so much respect for a hitherto despised task as to see that it is possible to do it quickly, neatly, with few utensils, without loss of time, and with an unsoiled apron.

Nurses' theoretical work should include, among other things, the study of the composition, uses, and cost of common food materials and manufactured products, the principles of cookery, making of menus, with proper regard for desirable combinations and variety of foods, the principles of normal nutrition, and the variations made in common diseases. Work given in the later years of training should include some study of purchasing problems, efficient and economical buying, and practice in making the best use of available materials; also economy of time and labor, and consideration in dealing with servants. One of the serious faults of a nurse from a large institution is her lack of regard for the resources of the average family of moderate means. The great abundance of supplies always at hand in the hospital and the presence of many servants tend to make her extravagant and thoughtless when she faces the problem of a private family. To help her in such conditions as these, she should have practice in meeting ordinary emergencies of cooking and housekeeping, and be taught substitutions that can be made when the customary utensils and materials are lacking. Individuality of method and the ability to think for herself should be encouraged.

Until she has thoroughly learned the meaning of her training she should follow the definite methods of routine, for it is foolish to expect good results when the worker is not perfectly familiar with the object to be attained; but when she fully understands the meaning of what she has been taught, she may bring her own individuality into the way of accomplishing it. When she leaves the institution she becomes dependent on her own resources.

In many hospitals the dietitian is under the direction of the superintendent of nurses, but, when this is not the case, very close cooperation should exist between the training school and the dietary department.

The supervisors of nurses and the dietitian should work out a very definite method of preparing such nourishments as are made on the wards, of setting trays and of serving various foods, so that the theoretical instruction of the nurses and their practical work on the wards shall coincide. It is a most discouraging situation for the dietitian to teach carefully and in detail the preparation of certain foods and to find that, as the nurses reach the wards, each is following her own inclination or is being retaught an entirely different method by her supervisor.

If the nurses have originally been taught a method based on scientific principles, which gives satisfactory results and is sufficiently economical of the nurse's time, it would seem to be reasonable cooperation on the part of the training school to continue the method on the wards. If, however, the method taught is impractical from the ward standpoint, then the dietitian should be sufficiently adaptable to hospital needs to modify her teaching to a standard that will give the best results possible in that particular case.

In a large institution, where her duties are many, the dietitian will seldom have time to attend to the serving of trays on the wards. In such cases this can best be done by supervising nurses. I can see no great advantage gained by the dietitian coming into any kind of personal relations with the patients. It only serves to make complications on the ward and creates dissatisfaction in both departments.

Physicians in some diseases are using dietetic means as almost the sole treatment given to a patient. In these cases the diet is as carefully prescribed and the results as carefully recorded as in the case of medicines. It would seem to be the logical work of the dietitian to see that the food for these cases is given the same attention which a pharmacist gives to his prescriptions, leaving the administration of both to the nursing department. There are doubtless times when an occasional discussion between the doctor and dietitian might be desirable, such as special combinations of materials in a recipe to produce certain food values, or other matters of a general interest, but routine discussion of cases only serves to create confusion of responsibility for the patients.

It has been a much-discussed question whether the dietitian should be a nurse. Many feel that if this were the case, most of the present difficulties would be overcome. It is only reasonable to suppose that a graduate nurse who has also had a full course in domestic science is much better equipped than one with half the training, but this means a minimum of five or six years of strictly professional training, which is more than most women will give. The temptation is to abbreviate one of the courses unduly on the plea that something already taken may be regarded as an equivalent. On the whole, a woman so qualified will be a rare exception. In general, the best practical results will probably be accomplished by more complete equipment of the domestic science graduate who elects the dietitian's work, and a more thorough training of pupil nurses in foods and nutrition which will result eventually in better prepared supervising nurses. These changes, with an increased appreciation and recognition of a capable dietitian, will result in solving some of the present problems and

bringing about better relations between the departments of the hospital.

The New Pure-Food Catsup: Or, When Is a Chemical Not a Chemical?

BY DR. J. A. WESENER, of The Columbus Laboratories, Chicago.

[Continued from the March issue.]

The new pure-food catsup, which is a step backward in the art of manufacturing this product, came about by the attack of the United States Department of Agriculture on the use of sodium benzoate in the preparation of foodstuffs. When this article was excluded from use in the manufacture of catsup, it was necessary to substitute other preservatives in its place, as otherwise it would be impossible to preserve this product. Sugar and tomatoes ferment readily, and the result of their combination in the presence of bacteria is like the adding of fire to gunpowder—an explosion.

The manufacturer, then, to preserve this new pure-food catsup, was obliged, first of all, to change his formula, thereby changing the flavor and character of the product on which he had spent millions of dollars in advertising and establishing a well-earned reputation. If the particular brand of catsup which the manufacturer was putting on the market was of the sour-and-spice type, it was very easy for him to preserve this catsup by the use of excess of vinegar and spices and without the use of any benzoic acid. If, on the other hand, the brand of catsup was of the sweet type—and this, by the way, is the one most generally preferred by the consumer—the addition of an excess of vinegar and spices called for an excess of sugar, in order to disguise to the taste the excess of spices and vinegar, and this method spoiled the delicate flavor of the catsup, which flavor is retained in catsup preserved with benzoic acid. For it is well known that sodium benzoate and benzoate acid have no flavor and do not in any way modify the flavor in which they are used. The present way of preserving the new pure catsup is either by the use of an excess of vinegar and spices, the product being then boiled down to a greater density than if benzoic acid is used, or by the addition of an excess of vinegar and essential oils and fluidextract of capsicum. The essential oils and fluidextract of capsicum are added last when the product has been boiled down to its proper density to avoid volatilizing the essential oils.

Within the past three or four years I have made extensive experiments in the preservation of catsup without the use of sodium benzoate or benzoic acid. I have found that, if the catsup was sufficiently concentrated with an excess of spices, the product would keep well, although, as already stated, the tomato flavor was almost entirely disguised by the excess of aromatics and vinegar. I also found that the product could be better preserved by the use of the essential oils, excess of vinegar and fluidextract of capsicum, the latter being especially beneficial as a preservative. Catsup preserved in this manner is much darker in color and the product preserved by the use of the essential oils and fluidextract of capsicum usually shows quite a discoloration in the neck of the bottle. If you should find this condition in catsup brought on your table you could readily surmise the cause, and your conclusion will be well strengthened by the spicy taste of the product.

PRESERVATIVE EFFECT OF BENZOIC ACID

The preserving action of benzoic acid has long been recognized, and it has been found that this material in even very small quantities, amounting to less than 0.05 percent, is effectual in checking fermentation and even destroying many forms of bacteria. The substance is usually added to foodstuff in the form of sodium benzoate, which is more soluble in water and which is speedily decomposed by the natural acid of the tomatoes.

The medicinal dose of benzoic acid as specified by the United States Pharmacopeia is 7½ grains and that of sodium benzoate is twice this amount, or 15 grains. It may be stated in this connection that it is a tendency of the United States Pharmacopeia to give the medicinal dose near the low limit rather than the high. The United States Dispensatory gives the dose of benzoic acid as 30 grains and states that from 60 to 120 grains of sodium benzoate may be given in divided doses during the day. It will be of interest to compare the dose of essential oils, fluidextract of capsicum, and acetic acid (vinegar) with that of benzoic acid and sodium benzoate. The medicinal doses as given by the United States Pharmacopeia are as follows:

Cloves, 4 grains; coriander, nutmeg, and black pepper, each 7½ grains; allspice and caraway, 15 grains. As for the essential oils of these aromatics, the dose of oils of cloves, caraway, coriander, nutmeg, and allspice is 3 minims, or practically 3 grains, while the dose of cinnamon is less than 1 grain. The dose of the fluidextract of capsicum is also less than 1 grain. It will at once be seen that the dose of all these substances is very much less than that of either benzoic acid or sodium benzoate. The dose of dilute acetic acid containing only 6 percent by weight of acetic acid is 30 drops, or practically 30 grains. When we calculate this to the actual amount of acetic acid which is present in this diluted acetic acid, we have practically 2 grains as the dose of pure acetic acid. The books always give the precaution that this medicine should be diluted with water when prescribed, and the pure acetic acid sold by the drugstore must bear the red label of the skull and cross-bones and be marked "poison." The maximum dose of benzoic acid is given in the Pharmacopeia as nearly four times as great as that of acetic acid.

Now, as to the preserving action of acetic acid: Sternberg states that a solution of one part of glacial acetic acid to 300 destroys the cholera spirillum in one half hour. In the proportion of 0.25 percent it restrains the growth of typhoid bacillus and in 0.3 percent destroys its vitality after three hours' exposure; and, on the strength of another authority, he states that the cholera spirillum fails to grow in the presence of 0.132 percent, and is destroyed by 0.2 percent acetic acid. From the data given in this work, the antiseptic properties of acetic acid are found to be greater than those of boric acid and salicylic acid and one-third as great as benzoic acid. From the formula used by some large manufacturers of catsup, we are enabled to calculate that the amount of acetic acid added is somewhat in excess of 1 percent of the finished product. It is well recognized that there are some acid-resisting bacteria that will grow even in the presence of much acetic acid, and to preserve the catsup completely it is necessary to add other antiseptic substances. A person consuming an ounce of catsup containing this amount of acetic acid would receive practically 4.6 grains of pure acetic acid, or more than twice the medicinal dose as given in the United States Pharmacopeia, whereas, if he were using an ounce of catsup preserved with benzoic acid, he would consume only one-twelfth of this amount of benzoic acid, or practically 1/20 of the medicinal dose of this latter article. Taking the combined medicinal doses of the essential oils used in preparing catsup and necessary to complete the preservation of it, we find it necessary to use an amount of this substance only a little less

than is required of the benzoic acid, notwithstanding that the medicinal dose of these substances, as has already been shown, is less than one-half, and in the case of the oil of cinnamon and the fluidextract of capsicum hardly more than one-tenth as great as the medicinal dose of benzoic acid.

A recent bulletin of the United States Department of Agriculture, Bureau of Chemistry, Bulletin No. 119, recommended for publication by Dr. H. W. Wiley, chief, gives results of experimental work carried on by Dr. A. W. Bitting, an inspector of the Bureau of Chemistry. This bulletin states that the regular catsup used in their experiments and evidently recommended for manufacture consisted of the pulp of ripe tomatoes to which was added granulated sugar, 80 grains distilled vinegar, table salt, onions, garlic, whole cinnamon, cloves, mace and ground cayenne pepper, and that other catsups were made in a similar manner by substituting for these whole aromatics the essential oils and also the acetic acid extracts from these oils to give the same strength as with ground spices. The bulletin does not give the amounts of these various ingredients that were used, but it does state on page 27 that each manufacturer must work out the quantities that could be used in his formula and still retain the character of his goods, implying that in the administration of the pure food law no exception will be taken to any quantity of these ingredients which the manufacturer might see fit to put in. It is stated, further, on page 26, that with the increase in vinegar it is necessary to add sugar and slightly more spices to overcome the pungency of the acid and thus insure good flavor, and we might add "good preserving." The authorities here do not appear to see any connection between that paragraph in the pure food law which states that an article shall be deemed to be adulterated "if it be mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed," or to the Food Inspection Decision No. 66, which refers to the use of sugar in canned foods. In this bulletin attention is called to the clause just quoted, using it as a basis for restricting the use of the sugar to sweeten canned corn and other vegetables. It is there stated that it is held "that the addition of sugar to a substance not naturally sweet, converting it into a substance which might seem naturally sweet, is justified if the label plainly indicates that this sweetening material is added."

[To be continued.]

Abernethy's Cure for Gout

"Pray, Mr. Abernethy, what is a cure for gout?" was the question of an indolent and luxurious citizen.

"Live upon sixpence a day, and earn it," was the cogent reply.

John Abernethy, second son of a Scotch-Irish family, born April 3, 1764, a physician of rare discernment, a surgeon of great skill, a lecturer, and teacher of dramatic magnetism, never said a better thing in his life. It is particularly apt in this country where the sin of overeating is far more common than the sin of overdrinking. Gluttony, always a fault, is all the more glaring in a land where a plentiful food supply permits it to be more general. The sallow, fat cheeks, the aching joints and irascible temper of the prosperous overfed are far too common. Abernethy said to one such—the Duke of York, by the way—"Cut off the supplies as the Duke of Wellington did in his campaigns, and the enemy will leave the citadel."

Abernethy was married, January 9, 1800, to a lady whom he met at the house of a patient. A brief courtship was followed by a proposal by letter giving the lady a fortnight in which to make up her mind and deprecating any "dangling." He was not as temperate with regard to work as he was to food. He did not interrupt his lectures even for his wedding, and died at the age of 67, completely worn out, a victim of his gluttony for work.

Miss Grace McCullough, dietitian of the Peter Bent Brigham Hospital, Boston, has been appointed to reorganize the dietary department of the Albany Hospital, Albany, N. Y. Her former pupil and assistant, Miss Alice H. Mitchell, will carry on the work. Extensive improvements are being made in walls, floors, and equipment.

The Nurse Anesthetist

During the recent Hopkinsville meeting of the Kentucky State Medical Association, the following report of the committee on ethics was presented to and unanimously adopted by the house of delegates:

"The *esprit de corps* of the medical profession is due to the observance of medical ethics by the profession. Medical ethics stand for etiquette and fair dealing among physicians, and the ethical physician does nothing to lower the high standard of the medical profession. . . . It is unprofessional for a physician to assist unqualified persons to evade legal restrictions governing the practice of medicine, and physicians should expose without fear or favor, before the proper medical or legal tribunals, corrupt or dishonest conduct of members of the profession.

"Your committee, in this connection, desires to call your especial attention to a violation of these principles of ethics in the employment by surgeons of nurses and others as anesthetists who are not trained in the practice of medicine. It is urged that this is a procedure under the control of the surgeon, but we submit that neither law nor usage permits surgeons to decide who shall be permitted to practice medicine. In addition, few surgeons are qualified better than others of the profession in the administration of anesthetics. In order, therefore, to stop this evil now, your committee recommends that the medical profession of Kentucky request its members not to employ other than qualified physicians as anesthetists, except in cases of emergency. In order to make this request urgent and effective, we would suggest that the profession should not refer cases to hospitals where nurses are allowed to give anesthetics, and that hereafter no member who violates the law and ethics shall be considered in good standing in this association. . . ."

The Advantages of the English Language

In speaking of group diagnosis of unusual children, F. H. Knight says (*Albany Med. Ann.*): "All knowledge should be as nearly first hand as possible, and all that is known should be expressed in language which all interested can understand without frequent recourse to the dictionary. It will not do to speak of a recidivist afflicted with anorexia showing abnormal kinaesthetic sensations and epideixis of attention with a low hyparctic rating, especially if one should add, 'You know that no hyparctic rating per se indicates the future possibilities or probabilities of development.' It would be much better to speak of an old rounder who had lost his appetite for food and who is numb with cold and who finds it impossible to give his undivided attention to anything, etc. It adds greatly to the interest of all concerned in making a unified diagnosis of a case not only to understand his own contribution to the diagnosis, but to understand the contribution made by everyone else concerned; and, after all, the English language is a fairly good medium for the expression of human thought."

PREVENTION OF BLINDNESS — MATERNITY

Conducted by CAROLYN CONANT VAN BLARCOM, R. N.,
Secretary of the Illinois Society for the Prevention of Blindness, Chairman of Committee on Social Hygiene of the American Nurses' Association.

Please address items of news and inquiries regarding Prevention of Blindness—Maternity to the editor of this department, 30 North Michigan Boulevard, Chicago.

How Two Thousand Detroit Mothers Were Cared for in Childbirth[1]

The very rapid growth of the city of Detroit has brought with it the serious problem of providing adequate facilities along all lines for a community whose population has increased by tens of thousands a year for several years. During this period of remarkable growth, many thousands of families of workingmen have come as strangers to the city. The welfare work which has become an important part of large mercantile and manufacturing establishments, together with the workmen's compensation law, has resulted in provision for prompt assistance to injured or sick workmen. In comparatively few instances, however, has such assistance been extended to include medical attention or nursing care for the wives and families of workingmen employed in the various establishments.

With a view to determining the best means of supplying adequate care in childbirth in homes, chiefly of independent, self-respecting families of moderate means, a limited survey was undertaken to ascertain facts as to existing conditions in this particular form of disability.

More than ten thousand homes of moderate means were visited during the investigation and records were made of two thousand cases.

A registered nurse, Miss Lillian Young, who has specialized in obstetrics and who has had wide experience in the care of such patients in institutions, as private nurse, visiting nurse, and supervisor of household nurses, was secured for the field work.

The inquiry was made by a house-to-house canvass in which interviews were secured with the mothers in the great majority of instances. In some homes where the mother was absent or unable to speak English, the information was given by the father, or a half-grown child, or a neighbor acted as interpreter. No cases in which the birth had occurred outside of Detroit or in a hospital were included in the records.

In deciding on the points to be included in the inquiry, the committee consulted with representatives of the Department of Health, the Associated Charities, the Babies' Milk Fund, and the sociological department of the University of Michigan. Facts secured include the following data: nationality; occupation of husband; approximate monthly wage; number in family; boarders; roomers; ages of children; approximate age of mother; of baby; attendance at birth—doctor—midwife; other assistance at birth; general home conditions; prenatal care; preparations for birth; postnatal care—visits by doctor—time in bed; length of time nurse was employed, if any; difficulty in securing medical or nursing assistance; cost of confinement; recovery or indications of insufficient care.

[1]Report of the Committee on Maternity Survey of the Detroit Home Nursing Association.

TERRITORY INCLUDED IN THE CANVASS

Sections of the city were selected which were believed to be populated chiefly by independent, self-respecting people who were not accustomed to seeking charity, but who are living on moderate incomes. . . .

The canvass revealed the fact that many streets which are commonly supposed to be inhabited by foreign-born people have, in reality, a large proportion of American-born and English-speaking people. On many streets it was found that in the blocks nearest the street-car line, American-born or English-speaking families predominated, while on the same streets in the blocks farther from the car line, the homes were occupied by foreign-born and non-English-speaking people. The investigator, acting on instructions from the committee, did not pursue the inquiry in districts occupied wholly by foreign-born or non-English-speaking people, because of difficulties in language, and for other reasons.

OCCUPATIONS

Among the families investigated were employees of the following firms:

Ford Motor Co.	378	Aluminum Casting Co.	4
Chalmers Motor Co.	6	Cadillac Motor Co.	18
Studebaker Co.	32	Burroughs Adding Machine Co.	3
Packard Motor Car Co.	68	Michigan Lubricating Co.	5
King Motor Co.	1	City Gas Co.	1
Maxwell Motor Co.	4	Grinnell Music Co.	1
Northway Motor Co.	10	Bell Telephone Co.	1
Dodge Bros.	42	Pittsburgh Plate Glass Co.	2
Hudson Motor Co.	8	Kelsey Wheel Co.	1
Fisher Body Co.	23	Farke-Davis Co.	4
Hayes Mfg. Co.	6	Detroit Creamery Co.	2
Timken Axle Co.	6	Edison Co.	13
Saxon Motor Co.	2	Hupmobile Co.	6
Wilson Body Co.	6	Michigan Copper and Brass Works	8
Page Motor Co.	1	Central Oil Co.	1
Continental Motor Co.	2		
Solvay Process Co.	8		

Information secured on this point was not always satisfactory, because in a considerable number of cases the wife did not know the nature of her husband's employment—knew only the name of the firm for which he worked. Records as to occupation were secured as follows:

Carpenter	83	Harnessmaker	1
Stonemason	33	Stenographer	1
Contractor	21	Waiter	1
Merchant	46	Cook	1
Machinist	106	Banker	2
Engineer	18	Electrician	21
Shoemaker	1	Insurance agent	3
Printer	9	Baker	12
Painter	28	Butcher	10
Druggist	2	Milk peddler	4
Tile-setter	4	Teamster	23
Tailor	19	Diemaker	9
Boilermaker	1	Coremaker	10
Laundry worker	3	Clerk	38
Plasterer	11	Barber	15
Plumber	13	Minister	1
Steelworker	57	Tinner	7
Stovemaker	2	Blacksmith	7
City fireman	8	Motorman	22
Policeman	10	Laborer	358
Letter carrier	8	Saloonkeeper, including bartenders and beer peddlers	28
Casketmaker	2	Peddler	2
Salesman	21	Boat captain	1
School teacher	2	Cooper	1
Musician	5	Florist	2
Cigarmaker	3	Railroad worker	36
Mattressmaker	2	Maker of auto parts	110
Telegraph operator	2		

FAMILY INCOMES

In more than 100 cases the family refused any infor-

mation on this point. Reports were secured without much difficulty from the great majority.

Families having an income of $60 a month or under, 406. *Forty-eight families reported a monthly income of less than* $50.

Over $60 and less than $100 monthly, 796 families.

One hundred to $150 monthly, 642 families.

Less than a dozen families reported an income of over $150 a month.

NATIONALITY

Born in United States	970	Belgian	5
Canadians	41	Italians	63
English	26	Hungarians	67
Scotch	7	Poles	495
Irish	12	Austrians	39
Germans	152	Bohemians	10
Swedes	4	Lithuanians	18
Finns	4	Russians	65
French	3		

The remainder represented eight different countries. A considerable number of the patients who were foreign-born had been educated in the United States and spoke good English.

ATTENDANCE AT BIRTH

In 1,384 cases a doctor was employed to give medical attention at the time of birth.

In 557 cases a midwife only was employed.

In 49 cases a doctor was called in to assist the midwife.

In 11 cases neither doctor nor midwife was secured.

In one case the woman was entirely alone at the birth.

In another case the birth occurred between midnight and morning. The couple were strangers and did not know where to go to get assistance. The woman attended to the necessary duties with only her husband's assistance. A doctor was called the following day, who made but one visit.

NURSING CARE

Of the 2,000 cases, 24 employed trained graduate nurses for full-time service.

In 9 cases a graduate nurse was employed at the time of birth only.

In 408 cases a practical or household nurse was employed for full-time service.

Seventy-seven patients had some care from a visiting graduate nurse. Of the 77 patients receiving such visits, 23 held some form of insurance and were visited by a nurse from an insurance company.

Sixty-two patients were visited by a practical visiting nurse after the birth. In several instances the doctor employed a practical nurse to visit his patients and report to him on conditions, including charges for her services in his bill. In such cases the doctor usually made no visits after confinement unless the practical nurse reported some serious symptoms. An average of six visits were made by the practical nurse.

In 653 cases the husband acted as nurse at night and in 158 cases stayed home from work during the day to care for his wife.

In 175 of these cases the mother was dependent for care during the day on a child between 10 and 15 years. In several cases boys of 11 to 14 years were kept home from school to care for mother and younger children during the father's absence.

In 233 cases a neighbor came in two or three times during the day to care for mother and baby, the husband acting as nurse at night. "My neighbor helped me out. I did the same for her when her baby was born," was a common remark.

In 776 cases the patients received some care from other relatives—mother, aunt, sister, cousin, etc. In most cases this care was intermittent—for a couple of days only, or by visits during the day "to wash the baby."

TIME IN BED

In the great majority of instances the time the patient remained in bed was determined, not by her physical condition, but by the assistance she was able to secure. The presence of boarders or roomers in the house at such times very materially shortens the time the patient remains in bed; likewise the presence of young children to be cared for. Nationality also plays some part. It was found that daughters of foreign-born mothers remained in bed much longer than their mothers had been accustomed to. Foreign-born women who came to the United States at an early age and received their education in this country followed the customs of American women, rather than of their relatives or fellow countrywomen. They remained as a rule longer in bed and had a distinctly higher standard of care.

Thirty-four women stated that they remained but one day in bed.

Sixty-one were in bed two days.

One hundred and eleven were in bed three days.

Eighty-four were in bed four days.

One hundred and forty-one were in bed five days.

Four hundred and twenty were in bed from five to seven days.

One thousand one hundred and twenty-three were in bed from eight to ten days.

Twenty-six reported complications of various kinds which required them to be in bed more than two weeks. Five were removed to a hospital after the birth because of these complications.

TYPICAL CASES

Mrs. R. has seven living children. Husband is earning $12 per week. They have six roomers, the income from whom brings the total monthly income to $86 per month. Employed a midwife to be with her at the birth. Was cared for by her husband and a daughter 13 years old, who did the housework, cared for the baby and five other children in addition to caring for her mother. Patient remained in bed six days.

Mrs. N. is the mother of three children aged 5 years, 2½ years, and 5 months—a frail little woman. A neighbor came in about ten o'clock each day for a week and stayed several hours, charging $5 for her services. The fourth day after the birth Mrs. N. was out of bed and got supper for her family.

Mrs. M., American, 29 years of age, has a daughter 13 years old. A doctor was present at the birth of her last baby. A neighbor came in for three days to bathe the baby. Her husband stayed home from work and with the daughter's help cared for the mother for six days, till patient was out of bed.

Mrs. B., English, 37 years old, has six children, 13, 10, 8, 6, 3 and 6 months. Husband earns $50 per month. Had a midwife to attend her at birth who visited her for several days. Husband cared for her at night and children during the day. Was out of bed on fifth day.

Mrs. K., American, mother of four children, baby over 3 weeks old. Aunt came and stayed with her for a week. Patient was doing the family washing when the investigator called.

Mrs. H., mother of four children. Husband is a tailor. Employed a midwife, who made seven visits and charged $10. A 15-year-old girl cared for her mother. Mrs. B. helps her husband by doing the pressing, therefore could

stay in bed only four days. Husband employs five helpers in his work.

Mrs. W., American, has five children; had a doctor at time of birth. Her mother assisted and came each day for four days, staying several hours. After the fourth day the mother could not come, so patient had to get out of bed to care for the children and cook the meals. Husband is a sheet-metal worker, earns $3 a day.

Mrs. K., 37 years old, has six children; oldest daughter, 14 years of age, cared for her. Had a doctor at time of birth. A neighbor bathed the baby twice. After that the mother cared for it. Was in bed three days.

Mrs. B., 33 years old, has two children; had a midwife at birth who visited once daily for five days. Husband stayed home from work to care for wife and baby and a child aged 3 years. Was in bed three days.

Mrs. B., American, 34 years old, one child 3 years old besides the baby; unable to find a nurse at time of confinement. A friend came to care for her and brought her husband and two children with her. The children quarreled constantly, making it impossible for patient to rest in bed. Was out of bed on the fifth day.

Mrs. G., German, has five children, baby 9 days old, was doing the family washing when the investigator called.

Mrs. K., Hungarian, has four children. Husband acted as interpreter. When asked if a doctor or midwife was employed he replied, "Oh, she had her baby while I was at work—only the children here. She sat up in bed and cared for herself." Was out of bed on the second day after the birth.

COST OF MATERNITY CARE

It was not always possible to secure definite information relating to this point. Sufficient data were obtained to give a fair idea of general conditions.

In the twenty-four cases in which graduate nurses were employed for continuous nursing, the cost in the majority of cases was close to $100—in some cases above that sum. This included doctor's services, nurse's services, drugs and materials used, laundry expense, board of nurse, and wages of maid, unless some member of the family was available for the housekeeping.

In the cases in which a graduate nurse was employed only for the time of birth, some member of the family gave the after-care. The cost was approximately $30 to $35 for nurse and doctor.

In the cases in which practical or household nurses were employed, the charges varied from $10 to $20 a week. In many cases the nurse was kept only one week.

The Detroit Home Nursing Association has found it possible to supply a graduate to assist at birth, a household or practical nurse for two weeks with the supervision of the graduate, as the case requires, for a cost of about $35 for the fortnight's service. Laundry expenses are additional.

In the cases in which the doctor employs a practical nurse to visit his maternity patients, he as a rule makes but one visit. The nurse makes, on an average, six, and the common charge for the combined services is $20. The patient in such cases is left to the care of a child or a neighbor for the greater part of the time. The neighbor is often paid. Midwife's charges ranged from $7 to $10 for services at the birth and visits daily for five days or more. A few cases are recorded in which the charge was but $5. In the majority of cases the charge was $10.

Doctor's charges ranged from $10 to $30. The higher figure was not as frequently found as was the charge of $15. Twenty dollars or $25 fees to doctors were found in most cases.

FEEDING OF THE BABY

This investigation is concerned especially with the care received during, before, and after childbirth, and only incidentally with infant welfare problems, which form a separate line of study, and which are receiving careful attention by other organizations. The investigator ascertained that, of the 2,000 babies and mothers included in the records, 1,632 babies were breast-fed; 353 were bottle-fed. Of the bottle-fed babies, 135 were fed on a popular brand of condensed milk. Fifteen babies were still-born or died shortly after birth.

HOME CONDITIONS

In any such investigation the standard of nursing care must include not only the attendance during labor and after-care of doctor, nurse, midwife or family, but the general home conditions which surround the patient during the illness and before and after the birth. One question which constantly had to be weighed by the investigator was, "Was sufficient care for a good recovery for this mother a possible thing under the conditions surrounding her during her illness?" The number of children and their ages; the number of rooms occupied by the family and the general housing conditions, cleanliness, etc.; the presence of roomers or boarders in the home; the ability to secure the assistance of relatives; the family income; the general intelligence of the mother; the disposition of the husband—these and a variety of other factors were taken into consideration.

The investigation showed that, of the 2,000 families included in the records:

Four hundred and fifty-six families owned their home, or were paying for it on contract.

Sixty-six owned the two-family flat they lived in or were paying for it.

Four hundred and nine lived in rented houses of from three to ten rooms.

Four hundred and eighty-nine lived in four- to six-room flats.

Four hundred and fifty lived in houses with one or two other families, usually a story-and-a-half cottage divided.

Twenty-nine lived in a house with three other families.

Thirty-five lived in defective homes which were not fit for a baby to be born in.

Thirty-two families owned the houses they lived in, but had two other families living in the house.

PREPARATIONS FOR BIRTH

There are simple requirements which experience has taught are a necessity for the safety and general welfare of mother and child. These include, among other things, a sufficient supply of towels and sheets to provide ordinary cleanliness; a change of garments for mother after the birth; basins for doctor's hands and for solutions; some simple disinfectant, an antiseptic for the baby's eyes, a small supply of absorbent cotton, gauze, cheesecloth, clean old linen, etc., besides ordinary clothing for the baby.

In 508 cases, or about one-fourth of the number included in the canvass, these simple requirements seem to have been appreciated by the mothers, and good preparation was made.

In 714 other cases some attempt at preparation seemed to have been made, but the old story, "Didn't expect to be sick so soon," indicated that many of these depended

on eleventh-hour preparation or on borrowing from neighbors in their hour of need.

In 778 cases there had been no real preparation except certain garments for the baby, and in a considerable number of cases even these were not in readiness.

Prenatal care and treatment of the mothers, included in the records, was conspicuous by its neglect in most cases. Of the 1,384 cases employing a doctor, 394 had not engaged a doctor previous to confinement and therefore had no medical supervision. Only 668 of the 2,000 patients stated that their urine had been examined before confinement. It will thus be seen that in less than half of the cases in which a doctor was employed was this most simple and necessary measure in prenatal care taken.

It is probable that among the poorer families who apply at public clinics or dispensaries for treatment, a better record than this might be found. The financial circumstances of the majority of the families included in the canvass prevent them from securing dispensary treatment, yet are not sufficient to leave much margin for medical care.

CARE GIVEN BY THE HUSBAND

In a large number of cases the husband played an important part in the care received. As previously stated, in 653 cases, or about one-third of the whole number, he gave the only care received by mother and baby at night.

In 158 cases he stayed home from work during the day to do the nursing and keep the household machinery running. In most of these cases he stayed home only from one to four days, the mother after that time being left to care for the baby and wait on herself, with or without such help as a child could give her. In 31 cases he was at home from work one week, and in four cases two weeks.

In the majority of the cases in which the father stayed at home from work, a midwife had been employed, who came once a day. The care which the husband gave in such cases consisted largely in looking after the small children of the home, getting meals, and occasionally attending to the most pressing wants of the mother. In most of these cases the mother was expected to be out of bed on the second or third day after the birth and ready to resume her usual duties in the home. The husband expected his meals to be ready for him as usual when he came from work.

The following illustrations are typical of conditions in hundreds of homes. Mrs. M. has a child 2½ years old besides the new-born baby. Her husband is a machinist earning $100 a month. He was home doing the work when the investigator called. The midwife came daily and bathed the baby.

Mrs. S. has two children aged 4 and 2 years, besides the baby. They own their home, a five-room cottage. The husband earns $20 a week. He stayed home from work a week to care for his wife. A visiting nurse made eight visits and was paid $4.

Mrs. D. has two small children besides the baby. Husband earns $80 a month. They own their home, a six-room cottage. Her husband stayed home from work two weeks. No other nursing help of any kind employed.

Mrs. K. has four children besides the baby. Her husband earns $5 a day in a motor-car factory. They own their six-room home. The midwife paid eight visits, for which she was paid $10. Apart from the visits of the midwife, the mother was left alone to care for the new-born baby and the other children while her husband was away.

Mrs. G. has four children besides the baby, the oldest 10 years. Husband earns $80 a month. They own their home. The husband stayed home from work four days. Patient stayed in bed while he was home, after that took charge of home and family. In this case the man lost in wages in four days sufficient to pay a household nurse for a week who would have cared for the home and given the patient a fair chance to rest in bed and recuperate.

Mrs. Y. has three children besides the baby, the oldest 5 years old. They live in a five-room flat. Husband earns $2.75 a day. He stayed home from work two days. The patient was out of bed and in charge of children and home on the third day.

Mrs. T. has two children besides the baby, oldest 5. Husband, a carpenter, earns $90 a month. Her children cried so continuously while she was in bed that she got up on the fourth day. A neighbor came in occasionally, but no one was in charge of the home while she was in bed and the husband at work.

Mrs. B. has four children besides the baby, oldest 9. They own their home, a six-room cottage. Husband earns $17 a week; works in an auto parts factory. He stayed home from work eight days to care for home and children.

CARE BY OTHER RELATIVES

Figures previously presented show that in 776 cases, or considerably more than one-third, the main dependence for care was on relatives—a mother, sister, aunt, cousin, etc. Very frequently this care was paid for. A husband's mother was paid $10 in one case for coming in for several hours each day for ten days. A brother's wife in other cases was paid varying sums for the same kind of service. The important function of "bathing the baby" seems to have been considered the chief reason for most of these daily visits by relatives. In a large number of these cases of nursing by relatives, the visits were only made for three or four days, after which time the mother herself attended to the needs of the baby.

"Did not know where to get a nurse" was the reason given by a large number of mothers when questioned as to why they had no one to take care of them while their husbands were away.

STANDARDS IN HOME CARE

Any statement as to good or bad, sufficient or defective, home care in childbirth, presuppose a standard of some kind.

The minimum of decent care that should be striven for might be defined as follows:

1. Prenatal Service: Securing the ordinary precautionary examinations to guard against the dangers that always exist in a certain percentage of cases. Instruction as to matters of health that will bring about the best physical conditions at the time of labor. There should also be, when necessary, instruction as to the proper preparations for the care and clothing of the expected baby. Also, when necessary, the securing of working and living conditions for the mother during pregnancy, that will make it possible for her to reach the time of birth in good condition.

2. Service at the Birth: The making sure of good and responsible medical care and the service of a skilled maternity nurse at the time of birth.

3. After-Care: After the birth there should be secured careful watching, through visits by a competent

maternity nurse working under the doctor, so that any unfavorable symptoms may be known and reported at the earliest possible moment. In addition to this, there should be secured such household services as will make it possible for the patient to remain at rest in bed with a tranquil mind, until her physical condition is such that she can resume her regular family duties in good condition and without danger of permanent physical disability.

While this seems to be the minimum of decent care that every self-respecting community should strive to make attainable in all ordinary cases of pregnancy, childbirth and after-care, the methods of furnishing this necessary maternity care and service cannot be cast into a hard-and-fast mold, but must be made adaptable to the varying circumstances of individual cases.

The solution lies, therefore, in the inauguration of a system of service that shall be sufficiently flexible in its methods to be able to meet the needs of each individual family after looking into that family's needs and circumstances. Where family conditions are reasonably good, the attempt, too frequently made, of fitting the family to the service should be avoided, and service should be given in such a way as to conform as closely as possible to the family habits, tastes and wishes, in such a way as to save it from every unnecessary expense and difficulty.

The investigation has shown how very far our community is from having any proper care of its women in childbirth.

Of the 2,000 cases investigated:

Sixty-six percent were without the most elementary prenatal precautions as to examinations of urine, etc.

Fifty percent were without any medical advice during pregnancy, and prenatal nursing was practically unknown (excepting if any) the small percentage of cases covered by the nursing associations.

Only about 5 percent of the 2,000 cases had any contact whatever with trained nursing, whether before, during or after childbirth.

Forty-two percent of the members went through childbirth under conditions that practically forced them to resume their ordinary occupations before they could possibly be in a fit condition to do so. The inevitable result of this neglect is much subsequent disability and suffering and much unnecessary burden later thrown on our hospitals and other institutions for the suffering and dependent.

The investigation has also shown that this defective care is not due to poverty, for it exists in many families who are fairly well-to-do. It is due primarily to the lack in the past of any organized service which can give such care and can promote and diffuse the education showing the need of such care.

It will be possible to make a substantial change in this situation only if the community is willing to inaugurate and make available a proper maternity service available to the ordinary family at a cost within its means. After providing this, it will also be necessary to further the various educational processes that will be necessary to extend its use.

Such a system, once introduced and brought into use, not at first primarily among the down-and-out part of the population, but among the most intelligent and progressive of all races, carries with it its own most valuable processes of education and extends itself through the community on its own merits.

Experience shows that acceptance of poor service is a matter of habit and not a matter of preference.

The improvement and extension of a proper maternity service among the self-supporting families of the city would not take a large amount of capital, and, like our loan and building associations, it needs ordinary business treatment more than philanthropic and charitable management. It would, moreover, save much business loss due to holding men and women away from their regular occupations to meet family emergencies. It would prevent much disability and suffering and would strengthen and conserve that which is most valuable in the community. Once established in its work, it could be used by fraternal associations and benefit insurance agencies, and also serve the charitable in meeting the needs of the dependent, but it should not itself be made a charity, if it is to serve the public at large.

During the last three years the Detroit Home Nursing Association has been conducting an experiment on a limited scale that shows that work of this kind is entirely practicable, and that, conducted on a sufficiently large scale, it can if necessary be made self-supporting, so far as concerns the service of a large part of the population of the city. At the same time, it is evident that a moderate-sized endowment and a suitable building for nursing headquarters would make possible a higher standard of service and greater general usefulness.

It is customary for many of our American cities to subscribe great sums in order to have good libraries, good musical entertainments, or suitable hotel accommodations for strangers. There is far greater reason why more moderate amounts should be used to make available to all on a basis of civic equality a proper means of care for our mothers and for the children who are born into our midst.

The Detroit Home Nursing Association is willing either to undertake this work or to assist in its being undertaken by some larger organization. Our only plea is that the mothers of Detroit deserve better service in their time of trial than is now being given them, and that no hurry of prosperity can justify us in leaving things as they are.

IMPROVEMENT BY INSTRUCTION

Since much of responsibility in the care of the sick falls on relatives, two other plans which seem to offer possibilities of improved care for the sick in general are courses of instruction for women given in public schools, usually between the hours of 4 and 5 or 5:30 or 7 and 8 p. m., to which all women who wish are admitted without charge. In these classes a trained nurse teaches, by demonstration, proper methods of bed-making, bathing for invalids, bandaging, feeding the sick, how to give general care and attention which every invalid who is confined to bed should have.

The inauguration of instruction for older girls in the last year in public schools in such methods of proper care for the sick is the foundation for improved conditions in regard to the general care of the sick in homes. This instruction should not be in the form of haphazard talks, but should be as carefully planned and as carefully and systematically taught as any part of the school course. It is a part of the preparation for life which should be considered an essential in education. So long as the world lasts, babies will be born, mothers will need proper nursing, and aged invalids will need to be cared for in the home. Few women escape these responsibilities. Instruction in how to meet the general needs of the sick should be a part of the regular education of every woman.

INDUSTRIAL WELFARE

HOSPITAL WORK AND X-RAY RESEARCH

* * *

Eastman Kodak Company, Rochester, N. Y., Has Found That Its Own Welfare Activities Are Greatly Aided by the X-Ray

A concern that can carry on a welfare work in connection with some of its ordinary operations, and by means of this welfare work get a line on the quality of certain of its products, is indeed fortunate. The Eastman Kodak Company is thus favored in regard to its x-ray materials, and for that reason has had ample opportunity to try out its films and plates under actual working conditions and bring the product up to its present high-quality basis. The company maintains a large research laboratory, in the physics department of which numerous scientific investigations are continually being made with x-ray apparatus. A special room is utilized for the purpose. Although the equipment has been provided primarily for research work, it is adaptable for radiography of such emergency cases as occur in the various plants of the company.

Fig. 1. X-ray room, Eastman Kodak Company.

This x-ray department has become a very important and practically indispensable adjunct of the company's medical department. In fact, Dr. G. L. Howe, physician in charge, declares that equipment for taking x-ray pictures of fractured bones could be used advantageously in the medical department of every large industrial concern. For one thing, x-ray pictures remove the guesswork from all examinations. If a bone is broken the picture shows exactly where and in what way the fracture took place, and, in like manner, if the bone is not broken, it apprises one of that fact also, and thereby saves a great amount of unnecessary treatment. The physician can accordingly treat the patient with greater accuracy and thus shorten the period of disability.

Besides providing means for determining the exact location of bone fractures, x-ray apparatus is of great benefit in an industrial establishment for finding foreign bodies accidentally imbedded in the workman's flesh and for taking exposures of teeth thought to be infected at the roots. Moreover, where liability laws are in force, x-ray records in cases of injury assist in determining the proper periods of disability and thus prevent malingering.

Most of the exposures made in the research laboratory of the Eastman Kodak Company are of fractured fingers and toes. Fractured ankles, elbows, and wrists are also examined. In the winter, employees are occasionally injured by slipping on icy walks and pavements, going to and from their work; x-ray photographs are of great assistance in treating these injuries. Frequent use is, of course, made of the x-ray apparatus in locating foreign bodies and examining fractured ribs, collar-bones, etc.

EASTMAN KODAK COMPANY,
MEDICAL DEPARTMENT

NAME Helbelmira Van Salmark
PLANT Kodak Park
REFERRED TO Dr. Hodgson
ADDRESS Bldg 3, K P
FOR Radiograph of left wrist
H. L. Howe, M. D.
DATE 11/21/16

Fig. 2. Card from company's physician, which identifies patient and gives brief directions for making x-ray exposure.

Radiograph No. 760
Date 1/16/17
Name John Smith, K P
Case Right index finger
Tube:—M. A. 20 SPK 4" Dist. 18"
Subject:—Heavy. Med. Slight. ✓
Exposure in Sec. 1/2" 2 M. A. S. 60
Development Regular
Result O.K.
Diagnosis No fracture
Remarks

K P 559

Fig. 3. Card filled out by operator, which gives information regarding x-ray exposure and injury.

In Figs. 2 and 3 are shown forms used for facilitating the filing of information on x-ray work. Fig. 2 illustrates a card from the company physician, which identifies the patient and gives the x-ray operator precise directions as to what to photograph. Fig. 3 shows a card made out by the operator, on which he writes information pertaining to the exposure and the injury as outlined. The operator keeps both of these cards on file. Most of the exposures are taken on standard Eastman x-ray film, which is particularly advantageous, since it is not easily breakable and is more suitable for storing purposes than plates. The films are stored in safety envelopes, which are of non-inflammable paper. Each film is given a number corresponding to the radiograph number written on the operator's card. Thus both cards and films can be filed in such a way that they are easily accessible, and information on any case can be supplied at a moment's notice.

X-ray equipment in an industrial plant is particularly advantageous because exposures can be taken a few minutes after the accident occurs. For instance, one of the Eastman employees at the Kodak Park plant of the company caught his foot between one of the floors and an elevator. From a superficial examination it appeared as if the entire foot were smashed. The man was immediately taken to the x-ray room and an exposure made within fifteen minutes after the mishap. Contrary to expectations of the attendants, only one of the phalanges was fractured. Of course, with a photographic record to guide him, the physician was enabled to treat the foot with greater facility than otherwise would have been the case.

The x-ray equipment includes a 2-kw. Snook-Roentgen transformer, a Coolidge tube, a Snook improved hydrogen tube, older types of regulator tubes, and a Holding serial timer. As already noted, this apparatus was installed primarily for carrying on scientific investigations; but it has proved its undoubted availability for hospital work and has become so useful to the company's medical department that without it the emergency hospital equipment would now be considered very incomplete.

NATIONAL COMMITTEE ON MENTAL HYGIENE

Ninth Annual Meeting Held in New York—Program of Addresses

The ninth annual meeting of the National Committee for Mental Hygiene, Inc., was held February 7 at the Hotel Baltimore.

Mr. Otto T. Bannard, treasurer, announced that gifts amounting to more than $30,000 for general expenses had been contributed during the past year by four donors, one of whom pledged $100,000 toward an endowment fund that is being raised. The Rockefeller Foundation contributed $34,000 for special purposes, such as surveys of conditions among the insane and feeble-minded.

Short addresses were given by Dr. Walter E. Fernald, on "Supervision of the Feeble-minded in the Community"; Dr. William A. White, "Influence of Mental Hygiene on Methods of Dealing With Crime and Criminals"; Dr. William L. Russell, "Some of the Indirect Results Which May Be Expected to Follow Our Surveys of the Care and Treatment of Mental Diseases"; Professor William H. Burnham, "The Role of Mental Hygiene in Education"; Dr. E. E. Southard, "The Community as a Unit for Mental Hygiene Work"; Dr. Henry R. Stedman, "The Teaching of Mental Hygiene in Medical Schools."

Dr. Thomas W. Salmon, medical director, Dr. Frankwood E. Williams, associate medical director, and Mr. Clifford W. Beers, secretary of the committee, reported on the work of the past year. Surveys have been completed in the states of California, Colorado, Connecticut, Georgia, Louisiana, Pennsylvania, South Carolina, Tennessee, Texas, and Wisconsin, and are now in progress in the cities of Chicago and New York. State Societies for mental hygiene are now organized in sixteen states, while steps have been taken towards the organization of societies in several other states. During the coming year emphasis will be laid upon the educational work of the committee. A feature of this work will be the publication of a quarterly journal, "Mental Hygiene," the first number of which was issued during the past month.

The following officers for the ensuing year were elected: Dr. Lewellys F. Barker, president; vice-presidents, Prof. Charles W. Eliot and Dr. William H. Welch; treasurer, Mr. Otto T. Bannard; medical director, Dr. Thomas W. Salmon; associate medical director, Dr. Frankwood E. Williams; secretary, Dr. Clifford W. Beers; executive committee, Dr. August Hoch, chairman; Dr. George Blumer, Prof. Stephen P. Duggan, Dr. William Mabon, Dr. William L. Russell, Dr. Lewellys F. Barker, Dr. Walter E. Fernald, and Mr. Matthew C. Fleming; finance committee, Prof. Russell H. Chittenden, chairman; Mr. Otto T. Bannard, Mr. William J. Hoggson, Dr. William B. Coley.

CHINESE MEDICINE AND THE EDUCATED CHINESE

A Dying Chinese Scholar Prefers Native Incantations to Western Medicine

While admitting that Western surgery is far beyond the range of the native surgeons, the Chinese have not an equally high opinion of our medicinal treatment—except in those diseases for which it is known that we have specific remedies—and when ill generally prefer to go to the native doctor. This attitude is taken not only by the lower classes, unacquainted with the learning and civilization of the West, but also by those who have received a foreign education and some of whom have lived abroad.

No doubt this preference for what is peculiarly their own is partly due to national prejudices. . . . About twenty years ago the Chinese Minister to London was a remarkable scholar named Lo Fung-luh. Educated in the West, he had acquired an almost encyclopedic knowledge of Western, and especially of English, literature. He was a fine Shakespeare scholar and was as familiar with Chaucer as with Herbert Spencer and John Stuart Mill. It was he who composed for his patron, Li Hung Chang, the remarkable series of speeches which astonished the British public during that statesman's visit to England by their liberal and lofty philosophy. During the last illness of Lo Fung-luh an English friend came to see him. At the time of the visit "he was lying on a low couch, and he pointed to a little wizened Chinese who was crouching beside him on the ground over a smoking brazier. For about five minutes the Chinese medicine man continued to chant in a shrill native voice, while from time to time taking up a pinch of ashes from the brazier and sprinkling them over different parts of Lo Fung-luh's body with strange passes and incantations. He thereupon kowtowed three times and retired. 'I thought, my dear friend,' Lo Fung-luh then said to me, 'it might interest you to see how a Chinese, steeped in your Western literature, saturated with your Western science and philosophy, dies—a Chinese.'"—China Medical Journal.

A new home for the Chesapeake & Ohio Hospital at Clifton Forge, Va., with accommodations for 85 patients will be opened about March 1. Miss E. W. Bauer, at present superintendent of the Chesapeake & Ohio Hospital at Huntington, W. Va., will take charge of the Clifton Forge institution when the new building is ready.

The best hospital is the one that keeps the largest number of people out. It should be a preventive rather than a curative institution. People should be encouraged to visit a hospital. . . . Hospitals must broaden their fields and instruct in the principles of health the children in the schools, the parents in the home, the father in his factory and the patients in the hospital.—Haven Emerson.

INSTITUTION LIBRARIES

Conducted by E. KATHLEEN JONES,
Librarian McLean Hospital, Waverly, Mass.; member Institutional Libraries Committee, American Library Association.

Please address items of news and inquiries regarding Institution Libraries to the editor of this department, McLean Hospital, Waverly, Mass.

Nebraska State Institution Libraries During 1916[1]

BY NELLIE WILLIAMS, Librarian for State Institutions.

The work of the institution libraries continues to be an interesting activity of the library commission, and its progress shows a real need of libraries for the benefit of this shut-in citizenship. Rather than theorize as to the part books play in the lives of these people, we will confine ourselves to a few statistics, and then give the word of some of our patients as to what the libraries mean to them.

There are three of the thirteen institution libraries from which we have been unable to obtain reports of circulation, though we know there is reading done in all of them, and two others cover only seven months each, but from those remaining our circulation for the past year is 45,457. This is for books alone, no record of periodical circulation being kept except at the penitentiary.

For obvious reasons, the circulation at the penitentiary far exceeds that of any other place, 15,107 books and 9,257 magazines being exchanged last year. Considering conditions, it seems to us not an uncreditable showing that the three insane hospitals report a combined circulation of 12,428. The boys at Kearney read 5,168 books last year, the children at the Orthopedic Hospital, 4,374, and our soldier friends at Burkett, 2,088.

To give the more significance to these figures, it seems but fair to say that, of the 4,700 inmates in all the institutions, but 1,800 are able to make any use of the libraries. In some, according to statistics from the superintendents, the proportion able to use the library is as low as 15 percent or 20 percent. In others it reaches 80 percent or 90 percent.

Bearing in mind the abnormal mental and physical conditions in several places and the fact that institution life is a busy one for the able-bodied, these figures stand for more than the mere numbers signify.

Though the reports of superintendents show the percent of high school graduates very small, with a great majority of the adult inmates below the eighth grade, it is gratifying to note the type of books which they enjoy. Nor has our standard of selection in any case been lowered on account of the educational deficiencies of our patrons.

Our aim is to consider carefully the nature of the foundation upon which we are building, and in each book added there is a hope that the choice will be justified by its use among the people. From the weighty problem of trying to prove the abiding influence of good literature in the face of possible conflicts, to the question of the remedial value of books upon those mentally ill, there is a conscientious desire to adapt the books to the people in every instance. . . .

The question of housing the institution libraries is an important one. Because of crowded conditions, it is not always possible to secure the most desirable quarters, but the fact that the best available locations have been given us proves the interest of the superintendents. In some cases the library has been given the most beautiful room in the institution. Where it is not so satisfactorily placed, we are simply sharing the disadvantage with other departments.

Plans for improved library quarters are being considered in some places. In others our hope has already been realized. At the Girls' Industrial School, the library is now placed permanently in the auditorium of the new building. At the Boys' Industrial School, the library has been redecorated and greatly beautified by new bookcases made by the boys. The library at the School for the Deaf has been moved to a cosy corner space. They also have new bookcases which were made in their carpenter shop. At the Lincoln State Hospital, a reading room in the amusement hall has been opened, new shelving has been built, and for two hours daily the patients have access to the books and periodicals. This change in location has come about because the superintendent, Dr. B. F. Williams, regards the book as a curative agent, and to that end he has emphasized the importance of its use. At the Home for the Feeble-Minded and at the Tuberculous Hospital we have just moved into roomy, sunny quarters in their new buildings. At the School for the Deaf, the choicest of locations is provided for the very little children.

The time which the libraries are open for the exchange of books varies, according to local conditions, from one hour a week, two hours a day, to any hour of every day. In six instances there are reading rooms in connection with the libraries. In two others there are rooms elsewhere in which people may gather to read.

Even with the cooperation of the superintendent, with our books upon the shelves and the reader ever with us, the problem of an effective library is not solved. The books and the people must be brought together, and that with unusual delicacy of touch. So we face the question of service along with all other departments of the institutions. . . .

Because the nurse in the hospital is the person naturally in position to bring the book to the patient, a series of talks on books and reading was given last winter to the nurses at the Lincoln State Hospital. These included one on the use of the library, one on how to get patients to read, one on out-door books, one on popular books of nonfiction, and one on poetry. They were developed from a syllabus prepared by Miss Edith Kathleen Jones, librarian of McLean Hospital, Waverly, Mass., and covered a period of about three months. We feel that it was at least worth while to come into personal touch with the nurses on whom so much of the hospital library work must necessarily devolve. Moreover, we were rewarded by seeing some definite results as an outcome of this work. In abbreviated form parts of these talks were also given to the nurses at the Norfolk Hospital for the Insane.

As another means of increasing the interest in the hospital libraries, we tried an experiment of reading aloud to the patients in the Lincoln Hospital for the Insane. It proved to be a very popular diversion for both men and women, and invitations to read on various wards were numerous. This was continued one afternoon a week all winter, and became an entering wedge in the development

[1]This report is extracted and abbreviated from the eighth biennial report of the Nebraska Public Library Commission.

of the work. Not only did some of the nurses begin to read on the wards, but our librarian now spends a part of library hours each day reading to the patients gathered in the library.

It is a mistaken idea on the part of many people that the insane are unable to read or are too uninterested to care for books, but we think we can disabuse the minds of such by giving the patients' own word on the matter. The opinion, too, is rife that they wish only the determinedly cheerful books, those which merely entertain, but one of our nurses in an eastern hospital tells of an insane patient who calls for the "big brave books, with problems of life to be fought."

As proof that our patients are reading and are appreciative of the hospital libraries, we wish them to speak by means of the following letters which were collected recently from the three insane hospitals. These few are selected from many more and are in the exact wording of the patients who wrote them.

"I must write you as I have been so much interested in the book 'Pollyanna.' It was a great help to me because it makes me remember many things which I have to be glad about, even if I am locked up. I can be glad I am not in as bad condition as many about me. I am glad for my clean dresses and for the nurses and patient friends who are so kind to me. I am glad for the squirrels and birds that play among the trees."

"Being a lover of good books, I have certainly appreciated the books which the nurses distribute from time to time throughout the different wards. When one can sit here in the State Hospital and read such books as 'The Efficient Life,' Alice and Phoebe Cary's poems, and so on, it gives the place a sort of homey halo after all."

"There are several branches of the Nebraska Library, and one of the most practical in its selection and use is the state hospital library. It is composed of current literature and many volumes from some of our best authors, extra good works. Library day for the men comes three times a week and is looked forward to with much anticipation by many on our ward. It would be regretted if we did not have a chance to make these regular trips to the library."

"Having taken pleasure in reading many books in the library here at Ingleside, I am very glad to mention my likes in regard to it. I like the books on nature most. 'In God's Out-Doors,' 'The Alps,' 'The Spell of the Rockies,' and others I might mention. Many of the novels are so amusing that they are a great help in passing the time pleasantly. Many of the books point a moral, such as 'Up from Slavery' by Booker T. Washington, which shows what a man can do if he has ambition. Books may do great good. 'May blessings be on the head of Cadmus the Phoenician or whoever it was that invented books.'"

"In behalf of several inmates on 24, allow me to express our appreciation for the privilege of reading the Ingleside state library books, either historical, Biblical, or fiction as suits our mood. They indeed help us to while away many moments and instruct us when inclement weather keeps us indoors. We want to thank you for this pleasure and privilege allowed us."

"In appreciation of the reading matter, books, magazines and newspapers furnished Ward II, I am permitted a word of praise. These literary and news advantages have been a source of great pleasure and diversion and no little fund of information during my three months sojourn here."

"As I have never read in but very few books until I came here, on account of close confinement I began reading the book, 'The Price of the Prairie.' Thought that I would read some for pastime and the book became very interesting to me. Also started another but have not finished it yet. I certainly enjoyed the first but cannot get much interest from the latter, which is 'Innocents Abroad.'"

"I derive much benefit from the books insomuch as they pass the time pleasantly, leave one in a happy state of mind and give food for thought. I specially enjoy those dealing with home life, such as Grace Richmond's, Kathleen Norris, and Eleanor Porter. I also enjoy those of travel and history."

"Among the many pleasant advantages offered by this free institution, the library deserves honorable mention. Any one who is considered able is allowed to draw books and take them to his ward. Among the books which the writer has enjoyed the Oregon trail by Francis Parkman ranks first, as picturing the hardships of the early settler, with its fascination of style and diction which make it interesting as a novel. I also like the writings of Rev. Van Dyke in his 'Little Rivers,' 'Days Off' and others vividly describing fishing and hunting trips. What a difference between the pleasure of listening to choice literature in the commodious library hall and doing all your reading in a ward, surrounded by a group of unfortunates who do not know what they say, nor how they say it, nor when! Surely the library hours are an agreeable change from the daily routine of our life of seclusion. All this is a step in the right direction, conducive to mental healing, resulting in self-control, accompanied by will-power."

Sterilized Games for Children

If you want to be strictly up to the minute, you will provide sterilized games for your children.

Under the direction of the Iowa Association for the Prevention of Tuberculosis, Des Moines school children will be instructed in antiseptic games. Education and health organizations are combining forces in a unique manner in the appointment of a Health Games Committee, consisting of educators, physical directors, and other interested persons. Games emphasizing hygienic teaching, good-health fairy stories, and other cheerful methods of acquainting children with ideas of health, will be introduced. "Swat the fly," a modification of the game of tag, and a "summer shadows" game, in which the person who is "it" is privileged to tag you when you are out of the sun, are some of the games already devised.—Child Betterment and Social Welfare.

The Problem of the Crippled Children

Investigators report that there are at least 3,000 crippled children in the state of Illinois. There is not a single public institution in the state to care for these youngsters, who are handicapped in life's race from the start. There are in Illinois only three institutions—all private—for this purpose, and their combined capacity is only two hundred.

To state such facts is to suggest the obvious remedy. Experts tell us that schools for crippled children without scientific orthopedic care to go along with tuition are next to useless. Mind culture in such cases is less important than body culture. The worst feature is that a large proportion of juvenile cripples are the children of poor parents. The agencies of the state, or at least of the county, must come to the rescue for real curative measures. These thousands of crippled children should get a helping hand in a humane commonwealth.—Child Betterment and Social Welfare.

LETTERS TO THE EDITOR

Nurses and Factory Labor

To the Editor of THE MODERN HOSPITAL:

Nothing has attracted so much attention from the hospitals of Illinois recently as Senate Bill No. 90, an act to regulate and limit the hours of female employees to eight hours a day or forty-eight hours a week.

In framing this bill, the originator saw fit to include hospitals; therefore it directly hits the training schools for nurses. Whether this was intentional or not I do not know. I cannot believe that it was. Some consideration must have been given this point, however, for Section I provides that the provisions of the section shall not apply to graduate nurses or nurses assigned to services in operating rooms in hospitals. Why the graduate nurses were favored I do not know.

Several years ago, a wealthy man with a kindly heart left $25,000 to build a hospital to care for the sick of the city in which he had lived and prospered. The executors, in carrying out the instructions of the deceased, proceeded to build the hospital. They soon found that the amount of money left would not build, equip, organize, and start the work as it should be. The result was that this hospital has always been handicapped and is really only a makeshift. Had this kindly gentleman called to his assistance a hospital expert or a well-balanced hospital superintendent, I am sure he would have made different provisions in his will. And so it is with this bill. Had the originator consulted a hospital expert, I feel confident it would have been drawn up with more discrimination.

In legislating on hospitals, their relation to the state should be carefully considered. There are three classes of hospitals: 1. Those that are chartered by the state, whose object is to afford medical and surgical aid and nursing to sick and disabled persons, of every creed, nationality and color; these are not to be operated for profit. Some of these hospitals are spending many thousands annually for charity, thus relieving the state of this burden. Some states make a per capita allowance for the care of free patients, but Illinois does not. Why should the state add any more burdens to these hospitals?

2. Hospitals that do *no* charity work and are run for profit.

3. Municipal hospitals.

Many of these hospitals have no well-organized training schools for nurses, but hire their nurses outright. Most of our hospitals do charity work and train nurses. All are contributing something to the state. In case of war, our government will have to draw on all our hospitals for nurses, regardless of their size or standing. These women must be trained for service. They are unlike the new recruit in the army: the government takes him and trains him; our nurses must be a finished product. Therefore, is it right to interfere with this development work by legislation officials?

The hospitals do not wish to kill the eight-hour bill, but they believe hospitals should not be included. Hospitals should not be placed in the same class as factories or even hotels. The sick must be cared for twenty-four hours a day, seven days in the week. Nurses and employees caring for these sick people cannot always drop their work when the whistle blows, as in a factory. Their work is of such a nature that it may mean unnecessary suffering to a patient to leave in the midst of an important treatment.

The bill does not include graduate nurses. I cannot understand why they should not be included. Most of these nurses are employed by patients occupying private rooms in hospitals and in private homes. The majority of our sick are unable to employ a graduate nurse; they must take what the hospital can give them. Why legislate against the sick poor and not against the rich?

As to maids in hospitals, they are better cared for physically than those in private homes; their hours are more regular and shorter; they have more time to themselves. Why legislate for the hospital maid and not the private home maid? With the scarcity of female help that now exists, it will be almost impossible to increase the number of maids to fill the gap. There also exists all over the country a shortage of young women who are fit for the nursing profession. In my opinion, this bill will have a tendency to lower the standard of our training schools for the following reasons:

It ranks nursing schools with factories, stores, hotels, etc., instead of as educational institutions.

It places our schools under inspection according to factory methods rather than as an educational institution.

It will have a tendency to develop a wrong spirit of nursing, which should be one of unselfish service. A nurse should not have in mind that she must leave her patient regardless of his condition when the clock registers the hour. With the advance in medical science has come the necessity for intelligent nursing. In many cases, the life or death of the patient depends on devoted, intelligent nursing.

ASA S. BACON,
Superintendent Presbyterian Hospital, Chicago.

Hospitals and Suits for Damages

To the Editor of THE MODERN HOSPITAL:

You have asked me to state the law regarding the liability of hospitals to respond in damages to patients who suffer injuries due to the negligence of doctor, nurse, intern, or other employee.

One must start with the premise that the law affords a remedy for every wrong. This being so, it becomes a matter of vital interest to know whether or not a hospital, merely because it ministers to the sick and needy, is relieved from that liability which the law imposes on all individuals and corporations.

At the outset, let me state that in discussing hospital liability I do not refer to the liability of those private hospitals that are organized for gain and that are incorporated under the laws of a state in a manner similar to the incorporation of business enterprises—that is, those hospitals that have a capital stock and pay dividends or that are organized for the purpose of making money for the men who own the capital stock in the corporation.

I refer rather to the hospitals generally known as "charity" hospitals—those organized under charters granted by the state, not for pecuniary profit, but, in referring to charity hospitals, bear in mind that I do not mean hospitals that have *only* a charity service, but I mean to include

in the designation of "charity hospitals" all of those institutions that are organized not for profit and that render a free service and part pay service and a private room service charging full pay.

The position that courts have taken with reference to the exemption of liability for torts committed by employees has reference to those hospitals that charge their patients just as well as to those institutions that render an exclusively free service.

Ordinarily, when a person, firm, corporation, or institution employs another in the pursuit of its business venture, the master is held liable for the negligent acts of the servant within the scope of his employment. This is known in the law as the doctrine of *respondeat superior* —that is, the master or employer must respond in a court of law for the acts of his agents and employees, and, if one is injured through the negligence or carelessness of the employee, the master must respond in damages. This is a well-settled doctrine of law.

The question then is, under what circumstances are hospitals relieved from the application of the doctrine of *respondeat superior?*

There is probably no hard-and-fast rule that charitable corporations are never liable under the doctrine of *respondeat superior*, but, if there is, it is strictly limited to the negligence of servants and has no application where the negligence is that of the corporation itself with respect to its primary duties. Perhaps a true statement of the rule is that in certain classes of cases plaintiffs are estopped from invoking the rule of *respondeat superior.* This seems to be on the theory that when a patient or other person applies for or receives treatment at a hospital or other charitable institution, and the relation of benefactor and beneficiary exists, an agreement to hold the hospital harmless from the negligent acts of its servants necessarily arises by implication from the relation of the parties.

Another theory on which the courts have exempted hospitals and charitable institutions from liability for the negligent acts of its employees is the doctrine of absolute immunity, on the theory that the endowments and funds owned by the charitable corporation create a sacred trust to be administered according to the will of the donors, and that the law will not allow a diversion of those trust funds for the purpose of satisfying claims for damages that may arise, due to the carelessness or negligence of employees of the trustees who are, for the time being, administering the trust imposed on them.

There is a great diversity of judicial opinion upon this subject. The law seems to differ in the various states of the Union.

Where the doctrine of absolute immunity obtains, it is rested upon the proposition that the funds of the corporation are the subject of a charitable trust, and that to subject its property to a judgment would be an illegal diversion and waste of the trust estate. I find that this doctrine has been asserted in Pennsylvania, Maryland, Tennessee, Kentucky, Illinois, and Missouri.

In Illinois the question, so far as I have been able to learn, has been passed on but once by our Supreme Court, in the case of *Parks* vs. *Northwestern University*, 218 Ill. Supreme Court Reports, page 381. In that case a student in the department of dental surgery, who was paying his tuition, charged that he received injuries resulting in the loss of an eye, through the negligence of one of the professors employed by the Northwestern University, while he was a student at work in one of the laboratories. The court exempted the university from liability, on the ground that it was a charitable corporation organized not for pecuniary profit, and that to permit a recovery would permit a diversion of its funds.

The court said:

"The funds and property are held in trust, and cannot be diverted to the purpose of paying damages for injuries caused by the negligent or wrongful acts of its servants or employees to persons who are enjoying the benefit of the charity. An institution of this character, doing charitable work of great benefit to the public without profit, and depending upon gifts, donations, legacies and bequests made by charitable persons for the successful accomplishment of its beneficial purposes, is not to be hampered in the acquisition of property and funds from those wishing to contribute and assist in the charitable work by any doubt that might arise in the minds of such intending donors as to whether the funds supplied by them would be applied to the purposes for which they intend to devote them or diverted to the entirely different purpose of satisfying judgments recovered against donee because of the negligent acts of those employed to carry the beneficent purpose into execution."

Perhaps the leading case found in the books upon the question of hospital immunity is that of *Powers* vs. *The Massachusetts Homeopathic Hospital*, 109 Federal Reporter, page 294. In a very able opinion written by Mr. Justice Lowell, of the United States Circuit Court of Appeals, the entire field of the law pertaining to the exemption of hospitals is thoroughly reviewed.

This was a typical case of hospital negligence, in which a nurse placed a hot-water bag against a patient, resulting in severe burns. In that case the patient was what is commonly called a "paying patient," her rate being $14 a week. Counsel in that case undertook to distinguish the case from that of a patient in the hospital who pays nothing, and the court held the difference to be immaterial.

"The corporation was organized for charity. That the ministrations of such a hospital should be confined exclusively to the indigent is not usual or desirable. Those of moderate means from necessity, and not a few people from choice, resort to great charitable hospitals for treatment, especially in surgical cases. Throughout the world this is the custom in these institutions, whether they are maintained by individual, religious or municipal charity. From patients who are not indigent, a payment is permitted or required."

"Commonly," said Mr. Justice Lowell, in writing the opinion of the court in the Powers case, "this payment does not make full pecuniary compensation for the services rendered. Those who make a considerable payment not infrequently receive, in some respects, a more expensive service than those who make a small payment or none at all. But the payment required is usually calculated upon the patient's ability to pay, rather than upon the whole cost of the treatment he receives. In our opinion, a paying patient in a hospital as well as a non-paying patient, seeks and receives the service of a public charity; that such a hospital in its treatment of a rich patient, shall be held to a greater degree of care than in its treatment of a pauper, is not to be tolerated. Certain luxuries may be given to the former which the latter does not get, and this for various reasons, but the degree of protection from unskilled and careless nurses must be the same in both cases. It would be absurd to make the hospital's liability for an accident dependent upon the payment of that insignificant proportion of the service rendered, which, in some cases, may properly be required from a poor man or woman. We are of the opinion that the case must stand the same as if the patient had been admitted without any payment whatever."

"We have to determine, then, if a patient admitted to a hospital maintained for charity can recover judgment against that hospital for injuries caused by the negligence of a nurse employed therein," and the court in that case held that the hospital was not liable.

A familiar principle of law is that a man is sometimes deemed to assume a risk of negligence, so that he cannot sue for damages caused by the negligence, and on this theory it seems Mr. Justice Lowell found reason for exempting the Massachusetts Homeopathic Hospital from liability.

The court said:

"One who accepts the benefit either of a public or of a private charity, enters into a relation which exempts his benefactor from liability for the negligence of his servants in administering the charity. It would be intolerable that a good Samaritan, who takes to his home a

wounded stranger for surgical care, should be held personally liable for the negligence of his servants in the care for the stranger. Were the heart and means of the Samaritan so large that he was able not only to provide for one wounded man, but to establish a hospital for the care of a thousand, it would be no less intolerable that he should be held personally liable for the negligence of his servants in caring for any one of those thousand wounded men.

"The persons whose means has established hospitals are good Samaritans, perhaps giving less of personal devotion than did he, but by combining their liberality, thus enabled to deal with suffering on a larger scale. If, in their dealings with their property appropriated to charity, they create a nuisance by themselves or by their servants, if they dig pitfalls in the grounds, and the like, there are strong reasons for holding them liable to outsiders, like any other individual or corporation. The purity of their aims may not justify their torts; but if a suffering man avails himself of their charity, he takes the risk of malpractice, if their charitable agents have been carefully selected."

Other authorities holding a hospital not liable for the negligence of its employees are:

Hearns vs. *Waterbury Hospital*, 66 Conn., 98.
Benton vs. *City Hospital*, 140 Mass., 13.
Corbett vs. *St. Vincent's Industrial School*, 177 N. Y., 16.
Lyle vs. *National Home for Disabled Volunteer Soldiers*, 170 Fed., 842.
Downs vs. *Harper Hospital*, 101 Mich., 555.
Thornton vs. *Franklin Square House*, 200 Mass., 465.

While the weight of authority seems to exempt hospitals from liability, sight must not be lost of the fact that there is a strong line of decisions holding the contrary view. Perhaps the latest exposition of the law holding the contrary view is to be found in the decision of the Supreme Court of the State of Alabama in the case of *Tucker* vs. *Mobile Infirmary Association*, reported in 56 L. R. A. (N. S.) at page 1167, in the note to which decision will be found a collection of important cases sustaining the doctrine announced in the Alabama case.

THE MODERN HOSPITAL should call particular attention to the fact that hospitals should not act upon the law as announced in the foregoing, without first determining whether the state in which the particular hospital is located is one of the states that adheres to the doctrine of absolute immunity or whether it is a state that applies the contra doctrine. A. J. PFLAUM.

The Relation of Hospital and Patient

A patient, writes Dr. D. P. Maddux in the *Pennsylvania Medical Journal*, has the right to assume, when he enters the ward of a hospital, that he will be placed under the professional care of some one having special proficiency in the condition for which he sought hospital care. The patient has the further right to assume that all modern, scientific methods will be employed to discover as completely as possible all that relates to the condition for which he was admitted. Unless this is done, the relation of the hospital to the patient is an unfair one.

The relation of the patient to the hospital is also manifestly unfair on his part when he obtains admission as a free or part-pay patient, though able to make full payment.

While, of course, the hospital is disposed to give to the patient the benefit of the doubt and accept his statement of inability to pay on its face value, yet, if a hospital admitted all such patients on a tentative plan, the final financial adjustment being dependent on obtaining the complete facts, much money now lost would revert to the hospital treasury. We hear much of the dispensary abuse, but the hospital abuse is a close second.

It is also a manifest injustice to permit a patient to be classified as a "pay patient" by the payment of $1 per diem when the cost of his actual maintenance may be double that amount. The attending physician or surgeon should not have the right to ask or collect his professional fees from the patient in the hospital until that patient has paid the actual cost of his keep.

EYE STRAIN IN GOVERNMENT EMPLOYEES

Surveys and Examinations Are Made of Treasury Building Workers by Experts—Changes Being Made and Corrective Work Done

In view of the importance of the condition of the eyes of employees of the Treasury Department, the great majority of whom are employed in occupations requiring constant accurate vision at short focal distances, an effort has been made to ascertain the exact condition of the illumination of the Treasury Building and to correct any faults found. At the same time an ocular survey of the employees has been in progress for the purpose of determining and correcting any deleterious effects on the eyes ascribable to the nature of different occupations or lighting conditions.

For this purpose, two scientific surveys have been in progress. First, a complete survey of the lighting of the building has been made by a lighting engineer, Mr. Davis Tuck, detailed by the U. S. Public Health Service, who has determined the illumination afforded each desk in the building. Alterations according to his recommendations are being made. In this way it is hoped to secure even and mathematically correct illumination at each desk in the different rooms, at the same time promoting comfort of employees and avoiding disagreeable and irritating effects of glare.

Second, a commissioned officer of the U. S. Public Health Service, Surgeon G. L. Collins, has been detailed to ascertain the condition of the eyes of employees, with any possible effect on them from present lighting conditions, and from the nature of the work performed. This officer has already made careful examination of the eyes of about one thousand employees in the Treasury Department employed in different occupations under different lighting conditions, ascertaining the visual and refractive conditions and noticing particularly any signs of internal irritation or inflammation that could be ascribed either to faulty lighting conditions or to special occupations.

While this investigation is not completed, according to this officer, no case of the few instances of serious eye trouble so far noted could be ascribed to faulty lighting, although a considerable number of cases of ocular irritation, usually of mild degree, ascribable to insufficient or improperly placed lights, were noted. In such instances efforts have been made immediately to correct the illumination.

In a far greater number of cases, symptoms of ocular irritation and eye strain were noted in those persons who were found habitually to use the eyes to excess, in many instances actually abusing them. These cases were usually noted among ambitious individuals who used their eyes for the near work imposed by their duties during the day, and also made a practice of using their eyes for hours of study at night.

An attempt has been made to give such advice and suggestions relative to ocular hygiene and such admonition against different forms of abuse of the eyes as will lead to lasting benefit to the employees while permitting a maximum of efficiency in the government service.

St. Francis' Hospital, Pittsburgh, Pa., is building a pathological laboratory to cost $25,000.

QUERIES AND ANSWERS

Price of Endowed Beds

To the Editor of THE MODERN HOSPITAL:

We are establishing a charity bed, a new venture in our institution, and there is some division of opinion among the committee and the board of directors regarding the price per year.

I am writing to ascertain what the price should be, and what is customary in other hospitals. Is $500 per year for a ward bed too much and $300 per year too little? We would appreciate some advice in this matter.

ILLINOIS.

You will know better than we what your per capita cost is and from that you can frame some sort of idea as to what it costs you to take care of a patient for a year, and then, in turn, you can determine whether you want to make a profit out of the bed in addition to the actual cost of maintaining it. Suppose, let us say, your per capita cost is $2, including everything; there are 365 days in the year, which means that your actual cost of maintaining that bed will be $730.

Of course, all sorts of prices are fixed for endowing ward beds, all the way from $300 up, but why shall we fix a price that is going to make it necessary for the hospital to meet a big deficit for that bed each year? In other words, we think the hospital ought to face the actual facts of the case and neither attempt to deceive itself nor anybody else. It is very certain that you cannot maintain a ward bed for $300, and if you are giving your patients all that modern medicine demands that they shall have in the way of nursing care and good hospital service, you are hardly running nowadays for less than $2 per day per patient.

Our own judgment is that you had better fix the endowment for your ward beds at $1,000, and for that the donor of the funds will have a right to expect for the patient he has paid or is paying for, modern care under modern conditions. The slogan that we are aiming at in our hospitals today is "Not how cheap, but how good."

Cost of a Small Hospital

To the Editor of THE MODERN HOSPITAL:

We are agitating a municipal hospital, and are seeking information as to the cost of a small hospital of about 20 or 30 beds. Do you know of any hospitals that size that are self-supporting? Any information you can give will be greatly appreciated. A NEW YORK HOSPITAL.

There is no doubt whatever that a 20- or 30-bed hospital can be made self-supporting if the conditions are anything like the average in this country. Such a hospital will never be self-supporting if the people of the community expect you to fill it up with charity patients, nor will such a hospital be able to keep full of pay patients unless the institution has the confidence and support of the physicians in the community to the extent that they are willing to send their paying patients there. In any average community in this country a hospital, if it is conducted on modern lines and enjoys the confidence of the medical profession, can be self-supporting provided only paying patients are taken. It is possible to take even a very few free patients and still maintain the self-supporting basis, but that principle is wrong and ought not to be invoked.

The point we make is that when a free patient is admitted to a hospital, funds must be provided for the specific purpose of caring for that free patient apart from the earnings from other patients; in other words, you have no right to take into your hospital a person who happens to have money, catch him on the flat of his back when he is helpless, and take out of his pocket the money not only to pay for his own keep, but also to pay for the keep of some other patient. The principle is not good morals.

The first thing to be done, of course, is to make all of your plans beforehand, make a survey of your community as to the need for the hospital, the size and character, see where the funds are to come from, plan the building, determine whether there is to be a first unit of a structure to be added to from time to time, or whether the hospital is to be built all at once. Then the hospital should be equipped modestly but completely, and in accordance with the demands of modern medicine.

It is in the organization, the manning of the hospital at the outset, that you can play safe. You should start out very modestly, with barely enough people to run the hospital at its minimum capacity, and then add to the number as the number of patients grows and your financial ability increases. It is the use of good judgment in the creation of the personnel of a hospital that means more in its success or failure than anything else, provided, of course, that the hospital has been properly built and properly equipped.

As for the cost: The average cost of a 30-bed fireproof hospital should be from $2,000 to $2,500 per bed. These figures can be reduced to about $1,000 per bed when non-fireproof materials are used. All figures are transferable into terms of cubic-foot costs by architects, but for your preliminary purposes, per-bed costs will do.

To Replace Old Flooring

To the Editor of THE MODERN HOSPITAL:

We wish to take advantage of the best information you may have on the question of best material for use in replacing old corridor floors. In part of our building the corridors have a flooring of pine, laid nine or ten years ago, with a 6-foot battleship linoleum runner partly covering it. We find that on account of the manner in which this floor was laid the boards eventually wear a little loose, and this wearing in turn loosens the nails, which work up through the linoleum. Where the floor is not covered with linoleum it is beginning to show considerable wear in places and slivers up somewhat.

In order to save the linoleum and also to lessen noise and obtain a more durable and lasting flooring, we have had some thought of using one or another of the plastic compositions which are advertised to be suitable to be laid over old floors. Would such a covering be satisfactory laid on an old floor without the addition of subflooring, perhaps steel lathing, too, and other deadening materials? If plastic floor or covering can be recommended, do you have any special brand considered the best, and also the address.

Do you think it would be more satisfactory in the long run to figure on a hardwood floor and take up the old one entirely?

Any information you may be able to give us on this question will be appreciated. AN OREGON HOSPITAL.

Of course, if you have the money and can afford it, the thing to do is to take up the old soft wood floor and put down a hardwood, preferably maple or oak. Perhaps, in view of your locality and remoteness from mechanical experts who can be had for the proper laying of one of the plastic floorings, this would be the more economical course

in the long run. Some of these plastic floors have given the greatest satisfaction, and others of the same make, furnished by the same people, have had to be torn out inside of a year. The materials were precisely the same, but the mixing and laying were different. If you are to import experts over long distances and keep them a couple of weeks, which is the necessary time, your plastic floor will cost you more than hardwood. These composition floors, laid in expanded metal on old floors, cost about 26 to 30 cents per square foot, according to the size of the contract and the distances in town that the men have to travel. This cost would be far greater if experts had to be brought long distances.

It might be a good thing for you to take up your linoleum, if it is still in good condition, draw the nails that seem to have worked loose, put in some good, small-head wire nails to hold the flooring in place snugly, and then put down building paper under the linoleum. The only way to put down this paper, however, is to use a whitewash brush and a paste on the floor first (ordinary starch paste will do); then put down the building paper, let it dry, then put on the battleship linoleum cement, also with a whitewash brush, on the upper side of the building paper. Put weights on the linoleum until it sets well and then put a brass rim on both sides of the linoleum. These rims are to be had at almost any hardware store. The rim is nothing more or less than a piece of brass about one and a half inches wide, folded over so that the under surface of the rim will slip under the edge of the linoleum, the upper surface being nailed down through the linoleum and floor. This rim gives a nice appearance to the job and protects the linoleum perfectly. We have not worked out anything that can be called standard for laying over old flooring. We have been experimenting for years, and the manufacturers are having more trouble than we are about finding something.

Ruling on Internship

New rules governing the appointment and employment of interns are embodied in a resolution adopted by the Ohio State Medical Board at a meeting held in Columbus, January 2. The resolution follows:

"WHEREAS, The State Medical Board considers hospital internship as furthering the better medical education of prospective practitioners,

"Be it *Resolved*, That unsalaried intern service shall be considered as a part of the medical education course and holders of such intern appointments shall not be required to be licensed in Ohio during their term of service, provided such interns at the time of their appointment file with the secretary of this board their respective preliminary and medical qualifications, the date and term of the service, and the name of the hospital;

"Be it further *Resolved*, That salaried intern service shall be considered as the practice of medicine and the holders of such intern appointments shall be required to secure licenses in Ohio; and,

"Be it further *Resolved*, That all previous rulings of this board in conflict with these resolutions be and are hereby rescinded."

The foregoing action is regarded as a step toward the requirement of an intern year as a requisite for medical licensure in Ohio.

That chains, shackles and other forms of restraint employed in removing patients from their homes to the various state hospitals be abandoned so far as possible is recommended in a recent report of the Illinois State Charities Commission. The commission suggests that patients be taken to the hospitals by trained nurses sent from the institutions for the purpose.

A Nursing Manual for Nurses and Nursing Orderlies. By Duncan C. L. Fitz Williams, M. D., Ch. M., F. R. C. S. Oxford Medical Publications, London.

This book, written and published primarily for Red Cross workers and orderlies, has much to recommend it to students of anatomy and practical nursing anywhere.

As the author states in his preface, not only has he described the organs of the body anatomically and physiologically, but also he has associated such description with an account of the diseases to which the organs are prone. For instance, after presenting a study of the nervous system in the way in which it might be done in an ordinary anatomy and physiology, he discusses the common diseases to which the nervous system is subject and their management by the nurse. Under paralysis may be found advice as to its nursing care, even to the prevention of bed sores and methods of arranging the bed in a way to cause the least discomfort to the patient, together with instructions regarding lifting and moving him. Even if one were unskilled or altogether unacquainted with such matters, one could get a pretty definite idea of how to lift and move a patient properly, while to the nurse teacher the directions would be most useful as supplementing her own knowledge and possibly suggesting changes in her methods.

Following the subject of the kidney is a description of its most frequently noted diseases with a consideration of the diet to be safely allowed. The chapter on inflammation, its causes and treatment, is most interesting as well as instructive, and the experience of the practical teacher must be vast in order to furnish the substance for an equally good lesson to her class.

The chapter on children and their care, including feeding and management generally, will be found useful by the mother as well as nurse, while the chapters on nursing appliances and miscellaneous first aid not only give absolute directions, but are extremely suggestive of other ways and means of accomplishing the same purposes.

Altogether, this new nursing manual for nurses and nursing orderlies may be considered a valuable addition to the list of text-books on nursing subjects.

The Memoirs of a Physician. Translated from the Russian of Vikenty Veressayev by Simeon Linden, with an introduction and notes by Henry Pleasants, Jr., M. D. Pp. 374. Cloth, $1.50 net. Alfred A. Knopf, New York, 1916.

This book purports to set forth the views and professional experiences of a young Russian physician, who calls himself "but an average practitioner with average ability and average knowledge." "An average practitioner" presumably means "a practitioner of average standing and success." That "Vikenty Veressayev" is an average (in the sense of representative) practitioner the reader may be pardoned for doubting, even while pretending to no knowledge of the "average" in Russia. Educated, intelligent, and kindly, "Vikenty Veressayev" is irresolute, despondent, and morbidly sensitive. The uncertainties of diagnosis,

the inevitable errors of the best and most conscientious practitioners, the misunderstanding of physicians by their patients and the public, the unsatisfactory financial and legal status of the medical profession—all these overwhelm him with gloom. His memoirs have an accent of sincerity, and such exaggerations as they may contain are apparently due to temperament rather than to intention.

A frank, well-balanced, constructive discussion of some of the problems raised in this book would be instructive. It is a wholesome thing for the laity to know and for physicians to acknowledge that medicine is not infallible, that physicians are human beings, not archangels, and that there are many things in medical education and the conditions of medical practice which might be improved. This book, however, though it is frank enough, is neither well balanced nor constructive. The reader who can restrain a certain natural irritation at its tone of hopeless and helpless pessimism will find it interesting (1) as a statement of certain difficulties that beset medical practice in general; (2) as a description of conditions affecting medical practice in Russia; (3) as a study of the temperament that should never, so long as more courageous temperaments are to be found, undertake the practice of medicine.

The Tuberculosis Nurse, Her Function and Her Qualifications. A Handbook for Workers in the Tuberculosis Campaign. By Ellen N. Lamotte, R. N., graduate of Johns Hopkins Hospital. Introduction by Louis Hamman, M. D., physician in charge of the tuberculosis dispensary, Johns Hopkins Hospital. Cloth, $1.50. Pp. 292. G. P. Putnam's Sons, New York, 1915.

Miss Lamotte presents to the public a stimulating work, not only for the public health nurse, but also for nurses in general and for the laymen interested in the social welfare, as well as for the hospital manager to whose institution may some day come the tuberculosis patient. The book offers: (1) a fine study in ethics (Chapters II and III); (2) very excellent directions for work (Chapters IV and V); (3) an insight into the sociological and physiological conditions peculiar to this disease, complicating, for the man in private practice and especially for the state, the handling of such patients (Chapters VI and VII); (4) a statement of the problem presented to the nurse in work with physicians of many types, and the gaining of her patient's confidence, to enable her to have the case diagnosed by a recognized physician of the dispensary (Chapters VIII and IX); (5) a careful outline of the attempts made to prevent the spread rather than the cure of the disease, through the care of the patient, for the good of the community (Chapters X and XI); (6) instructions for the direct protection of the family, with the uses of careful fumigation and disinfection of houses and furnishings; (7) a description of the function and equipment of the dispensary and sanatorium and a statement of the necessity for segregation of advanced cases (Chapters XIV-XV); (8) a statement of the problem of giving financial relief and of the dangers to the public in the many occupations followed by tuberculosis patients (Chapters XVII and XVIII); (9) an exposition of the advantages of municipal and the dangers of political control of the work of the health department and its fundamental agencies, the hospital, the dispensary, and the public health nurse.

Besides the treatment of the subject as outlined by the chapters specified, there is a note of sympathy for the patient, for the public, and for the nurse worker that is most attractive and induces even the casual reader to give it close attention even to the very last page.

Hospitals and training schools must be grateful for this contribution to their reference libraries.

NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast avenue, Oak Park, Illinois.

Hypodermic Units

The Greeley hypodermic unit consists of a collapsible metal container, threaded at one end and having the hypodermic needle slipped into the hub of the thread. Over the threaded portion a sterile glass protector is attached.

The simplicity of the unit recommends it for use in the operating-room, at the bedside or in the ambulance. The units are furnished in a great variety of sizes and containing practically all drugs which are used hypodermically. It eliminates, of course, the piston and plunger syringe and requires no sterilizer, as the needle itself comes sterilized ready to use. Each unit is used but once and destroyed after using; thus there is no possible chance of carrying infection from one patient to another.

Fig. 1. The Greeley unit. Twist off the cap B, withdraw the stylet C, and the unit is ready for use.

For hospital work in particular, this unit should meet with extensive use.

The Berry Window Ventilator

Here is a window ventilator which should appeal strongly to all hospital people, for the reason that it does away entirely with all drafts, thus permitting fresh air to reach the room, but regardless of outside weather conditions, never permitting draft, dirt, rain, or snow to pass.

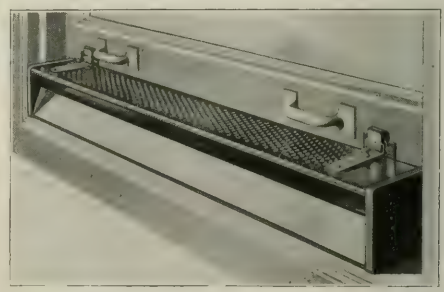

Fig. 1. Window open with Berry ventilator in use.

In form it is extremely compact and has the novel

feature of being self-collapsible when the window is closed. The amount of air admitted is regulated by the extent to which the window is opened.

The device is of such construction that there are no parts to get out of order, and, being made of a non-rusting material, heavily enameled, it retains its new appearance for an almost indefinite length of time.

Fig. 2. Window open with Berry ventilator not in use.

The ventilator is supplied enameled in oak or mahogany finish and can be quickly installed by anyone. The ventilators are regularly supplied in sizes ranging from 17 to 71 inches from sill to sill; considering the construction, the prices are quite reasonable.

Device for Warming Ether During Inhalation

Dr. J. E. Engstad, of Minneapolis, has devised an ether inhaler which permits of a warm ether vapor without the additional complicated parts. An ordinary ether inhaler mask is reinforced with a coil of German silver wire tubing of No. 12 gauge. To both ends of the tubing a stop-cock is fitted, which aids in controlling the flow of the

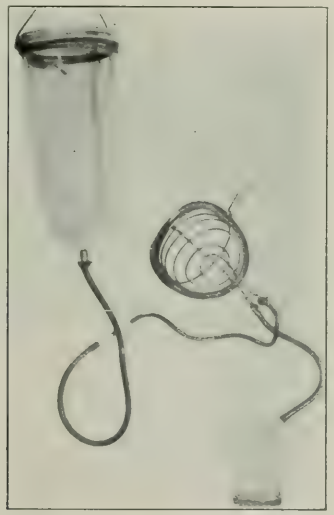

Fig. 1. The Engstad warm ether inhaler.

warm water through the tubing. Experience has shown that water of a temperature of 121 degrees gives the best result.

A percolator or any receptacle capable of holding water is attached to one stop-cock with a rubber tube, and is elevated about 3 feet above the mask. To the other terminal a tube is fitted to lead the returned and cooled water to a basin.

As an ordinary ether mask, the spiral wire reinforcement adds strength and a framework for the gauze, which is much to be desired in the ordinary inhalers.

Gases expand and the molecules are broken up as to the square of the temperature. It follows that the molecules, being smaller and less stable if warmed, enter the blood circulation with increased rapidity, are more diffusible and more rapidly eliminated than if the drug was inhaled and absorbed in a less diffusible form.

The amount of ether used is proportionately reduced. It is claimed that at least one-third less is necessary for narcosis where heated gases are used than where the fumes are more or less atomized, instead of vaporized into the highest possible unstable molecules, which are rapidly absorbed.

The Wright Splint

A splint which adapts itself to practically any shape, yet which has the necessary strength when placed, is always of interest.

The Wright wire gauze splint, here illustrated, is extensively used by the United States Army and the American Red Cross. It seems to fulfill every requirement of a

Fig. 1. The Wright splint, showing range of its application.

splint, and can be rolled up to fit into a space 4½ inches round by 1½ inches in diameter.

The material used is a metal properly selected for its strength as well as its adaptability in shaping itself to such parts of the body as it is to be applied. The metal is coated with a non-corrosive material so as to prevent rust, making this a good splint for either plaster bandages or wet dressings.

Air-Pressure Syringe for Anterior and Posterior Urethra

The illustration below represents at one-half actual size a new syringe devised by Dr. Abramovitz. It consists of a graduated barrel into which fits snugly a double rubber bulb. The upper bulb has an air capacity of 10 cc.; the walls of this bulb are thinner than the lower bulb, so that when the upper bulb is compressed the lower one does not collapse. The lower bulb has an air capacity of 20 cc. Its walls are of heavy gauge, and it is compressed by continual pressure from above. The barrel is made of glass, graduated to 15 cc. The tip is cone-shaped, thus best adapted for urethral work.

The syringe is used in the following manner: After the barrel is filled with the desired quantity of the drug to be injected, the contents are expelled in the anterior urethra, followed up with a quantity of air to inflate moderately the canal, which serves to open up the pus pockets in the canal, and allow the medication to reach all the infected areas.

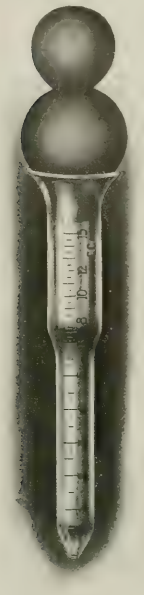

Fig. 1. Air-pressure syringe for anterior and posterior urethra, devised by Dr. Abramovitz.

Posterior urethral instillations are made by injecting the contents of the barrel in the anterior urethra, while holding the organ slightly raised, so that the drug will gravitate to the bulbous portion of the canal. The patient is then instructed to make an effort to urinate, which will relax the compressor urethræ muscle. Pressure is at the same time continued on the lower bulb, injecting in the canal a quantity of air, which will readily push the drug through the narrow part of the canal surrounded by the partially relaxed compressor urethræ muscle. The drug, being pushed through this narrow part of the canal by considerable force, spreads along the walls of the spindle-shaped posterior urethra, and efficiently covers the entire mucosa, while the air passes over the drug into the bladder.

The advantages claimed for this new syringe are as follows:

1. There is no piston and therefore the syringe is more aseptic than regular instillation syringes.

2. The air inflation permits a very small quantity of drug to be sufficient to cover the mucosa.

3. Posterior urethral instillation is made possible without instrumentation, and the instillation is quick, painless, and certain.

Hoglund Bone Engine

Dr. Emil J. Hoglund, a Chicago surgeon, has designed an electrically operated chain saw, trephine, and drill which covers practically the entire field of bone operative work. There are several features of the apparatus which differ greatly in principle from bone surgery engines already on the market. The motor is of compact form of the universal type, and of such size that it can be attached to the operator's belt, or, if desired, suspended from an irrigating stand. A flexible shaft, metal covered, is attached to the motor armature, this shaft carrying the hand-piece.

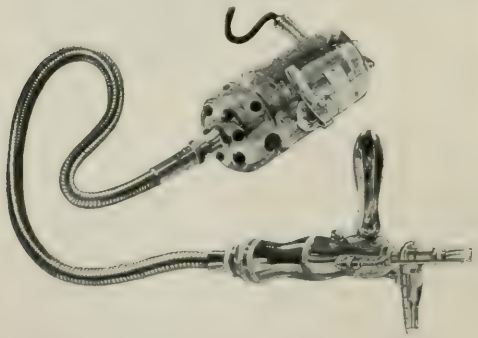

Fig. 1. Hoglund bone engine with cranial saw and trephine.

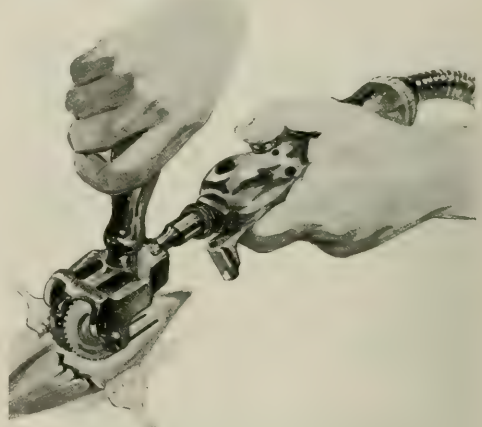

Fig. 2. Hoglund engine with parallel saw attachment.

For cranial operations the initial opening is first made by means of a modified DeMartel trephine, which is carried on the same shaft which operates the chain saw, and therefore it is not necessary to change implements when the flap is to be cut. By simply turning the hand-piece at another angle, the chain saw can be introduced. A circle can then be cut, measuring as small as three inches in diameter. The dura is well protected from the saw by a guard, and the chain saw is operated with but a minimum effort.

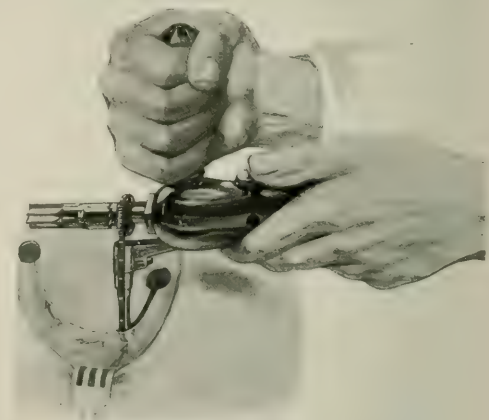

Fig. 3. Hoglund engine with chain saw attachment.

Another important feature of the apparatus is that during the time the flap is being cut the operator always has a good view of the field. If a smaller circle or flap is to be made than that within the range of the chain saw, a

spiral osteotome with guard may be attached, and with this osteotome an extremely small flap can be cut.

For the various long bone operations a set of round and olive burs are available. If a slot is to be cut, as in case of a transplant, the parallel saw is used. The method of attaching this saw is quite simple, and the cutting is all done within full view of the operator. There are no projecting parts sidewise, so that one can work in a deep wound and yet be able to closely observe the extent of the cut.

A set of instruments has also been designed for making the customary dowel pins and screws. The dowel pin is shaped from ivory or a piece of patient's own bone. If it is desired to form this dowel pin into a screw, a tap and die are used, so that the screw is made of the proper size and the threaded pin will fit snugly.

The engine can be sterilized by boiling with steam or solution, as preferred. The weight of the motor is 6½ pounds, and of the complete outfit in case, with all attachments, 15½ pounds, which, together with the fact that the motor is universal, makes it a particularly desirable equipment where one operates at different hospitals. Any of the various methods of making transplants, splints, etc., can be used with the Hoglund engine.

Gallbladder Aspirating Tube

Removing bile of a thick and viscid nature from the gallbladder with the well-known Ochsner trocar is not always easy because the distal opening in the sheath of the trocar is easily plugged up.

In order to overcome this objection Dr. David C. Straus, of Chicago, had a canula constructed, which is shown in the accompanying illustration. The canula is made similar to an Anglin irrigating urethral catheter, but has fewer openings, which are made considerably larger and extend for a shorter distance from the end of the tube. The fluted metal tube has a closed end and the openings are placed laterally in the depressed longitudinal folds. The difficulty of the openings becoming occluded is thus overcome, as the mucosa is held away from the folds by the longitudinal ridges. This canula is connected to a large aseptic glass and metal syringe as illustrated, or to an electrically driven aspirating apparatus by means of heavy walled rubber tubing. As the end of the canula is closed and smooth, one can move it about freely without fear of injuring the gallbladder mucosa, and, owing to the curve of the instrument, one can reach down well into the neck of the gallbladder, or even down into the bile-ducts, in case these are dilated.

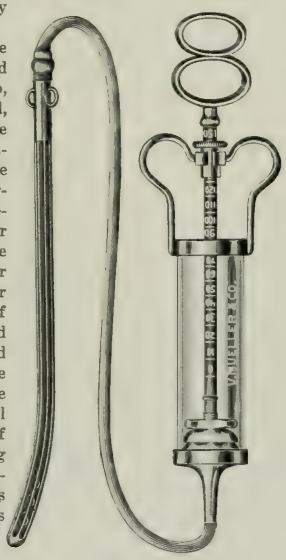

Fig. 1. The Straus gallbladder aspirator.

The instrument can be used not only for emptying the gallbladder, but also for aspirating the contents of the dilated bile passages and the cystic, hepatic, and common ducts, as well as for emptying other hollow viscera.

NEW YORK BUILDING TUBERCULOSIS HOSPITALS

Their Commercial Value to Business Interests Recognized by Railroad—Progress in Construction and Changes in Planning

The last six weeks of the old year witnessed a great deal of activity in the establishment of county tuberculosis hospitals in New York. Forward steps were taken in nine counties: Nassau, Broome, Chautauqua, Chenango, Niagara, Steuben, Rensselaer, Warren and Livingston.

The commercial value of a tuberculosis hospital to business interests has received striking recognition in the case of the Rensselaer County institution. The Albany Southern Railroad Company offered to devote $15,000 toward the purchase of a site along its right of way and accompanied this offer with options upon several properties. The company candidly stated that its offer contemplated a large financial return and that its proposal was a commercial one.

In Nassau County the board of supervisors entered into a contract a purchase a 100-acre property near Farmingdale, and issued bonds in the sum of $100,000 to meet the cost of site and buildings. The property selected had been strongly recommended by the Nassau County Association.

The sum of $150,000 is available for the hospital in Chautauqua County through a bequest made by the late Mrs. Elizabeth M. Newton, of Fredonia. In the case of the Broome County site it is interesting to note that the Lieut. Governor, the Speaker of the Assembly and the State Commissioner of Health unanimously approved the site on appeal by the board of supervisors from the adverse decision of the health officer of the town of Chenango where the site is located.

In Chenango County the board of managers for the new county hospital was appointed; the board of supervisors issued bonds in the sum of $20,000 for the establishment of the institution, and construction was started by the contractors.

Plans for the new Niagara County Tuberculosis Hospital have been filed with the State Commissioner of Health for approval. The sum of $100,000 was appropriated by referendum action of the voters at the general election in 1915.

In Rensselaer, Warren, and Livingston Counties—the three counties in which appropriations for tuberculosis hospitals of $150,000, $50,000 and $35,000 respectively were carried at the polls last November—committees of the boards of supervisors are busily engaged in inspecting sites.

THE MEDICAL RENAISSANCE IN CHINA

Ancient China in Advance of Contemporaries—Present-Day Backwardness in Medicine Rapidly Being Replaced by Scientific Progressiveness

Dr. Wu Lien-teh, whose interesting article[1] on the Central Peking Hospital appears on another page, writes in a recent number of *The Survey* on present and past in Chinese medicine. The theories of health and sickness held

[1] A Modern Hospital Established and Managed by Chinese, this issue, p. 241.

by both educated and uneducated classes for over three thousand years, he says, may be compared to those of the early Greeks. The ancient Chinese, however, were ahead of their contemporaries. For instance, inoculation for smallpox was practiced in China before Lady Mary Wortley Montagu introduced it into England. Medical statistics were published during the Chou dynasty, six hundred years before Hippocrates. While sanitation in the modern sense of the word is rarely seen in Chinese cities, a certain form of hygiene has been practiced for centuries. In spite of some excellent methods of treatment handed down from the ancients, however, the majority of native-trained physicians are completely ignorant of the causes of most diseases, especially epidemic diseases, and the simplest methods of prevention are not practiced even by the educated classes.

Fig. 1. A temple fair frequented by Chinese quack doctors. This illustrates the competition of old beliefs and habits which the new order has to undergo. Courtesy of Dr. F. H. Peabody and *The Survey*.

Although there are vague records of contact with Western medicine as early as the thirteenth century, the actual beginning of modern methods in China dates from the establishment in 1805 of the East India Company's offices at Canton and the introduction by Dr. Arthur Pearson of vaccination instead of inoculation to prevent smallpox. During the nineteenth century, foreign medical missionaries were introduced into China, and the list grew to comprise over four hundred names.

In the twentieth century medical progress was much accelerated. The first especially important event was the great pneumonic plague of 1910-11, which killed more than fifty thousand persons in five months. Almost every city of note in Manchuria was visited and there was no authentic report of any case ending in recovery. Western-trained physicians, with Dr. Wu Lien-teh at their head, were given unusual powers, and the plague was stopped in March, 1911. Following an international conference held at Mukden to study pneumonic plague and to make recommendations, the Manchurian Plague Prevention Service was established with headquarters at Harbin. This service works not only to prevent plague, but also to encourage sanitary reform in general and to promote public health by means of illustrated lectures, lantern demonstrations, and popular pamphlets. It has erected isolation camps at the main railway stations in the north, and treats ordinary hospital patients at its many hospitals.

An imperial mandate sanctioning the cremation of plague cadavers was issued in 1911. This was followed in 1913 by a presidential mandate authorizing the dissection of dead bodies. Together these mandates, so contrary to the spirit of Chinese ancestor worship, constitute an important and interesting breach with the past. In 1915 Western medical science was officially recognized by the central Chinese government.

The first isolation hospital of Peking, with accommodations for sixty patients, was opened last year. One of the best proofs that modern scientific medicine has taken firm root in China is the establishment of the Central Peking Hospital, described by Dr. Wu Lien-teh in this issue of THE MODERN HOSPITAL.

St. Joseph Sanitarium, St. Joseph, Mich., will increase the present bed capacity of eleven beds to eighteen this summer. This addition is said to be justified by the demands of the town, and is to be built with the earnings of the last eighteen months. The present hospital was formerly a handsome residence, which has adapted itself to hospital purposes very comfortably.

Fig. 2. One way of bringing patients in from the country is by wheelbarrow. Courtesy of Dr. F. H. Peabody and *The Survey*.

The MODERN HOSPITAL

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NEWS MATTER.—Our readers are requested to send in items of news, and also marked copies of newspapers containing matters of interest to those engaged in hospital work. We shall be glad to know the name of the sender in every instance.

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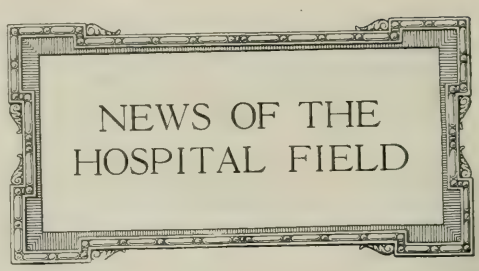

St. Vincent's Hospital, Erie, Pa., is preparing to erect a five-story addition.

St. Vincent's Hospital, Green Bay, Wis., opened a new $75,000 addition in March.

The Central Maine Sanatorium at Fairfield is planning an extension to cost $50,000.

Business men of Superior, Mont., are supporting a movement for the establishment of a hospital.

The Sioux Valley Hospital, a new 35-bed institution, will be opened at Cherokee, Ia., about May 1.

Dr. John B. Thomas and others at Midland, Tex., will soon begin the erection of a private sanatorium.

The South Carolina Baptist Hospital at Columbia has recently installed complete new x-ray equipment.

St. Vincent's Hospital, Bridgeport, Conn., is asking the state for an appropriation of $50,000 for new buildings.

The New York Medical College and Hospital for Women, New York city, opened a new laboratory building March 12.

Efforts are being made to organize a community hospital association and establish a hospital at Aurora, Neb.

The Schneck Memorial Hospital, Seymour, Ind., was recently damaged to the extent of $900 by the explosion of a sterilizer.

Dr. E. E. Fry, of Bonners, Idaho, has purchased at that place a site for a hospital, which he hopes to erect in the near future.

The Gainesville Sanitarium, Gainesville, Tex., has recently opened a new fireproof annex, increasing its capacity to 60 beds.

Drs. C. P. Thompson and Paul C. Alexander, of San Francisco, will soon begin the erection of a hospital at Pescadero, Cal.

The King's Daughters' Hospital at Gulfport, Miss., is having plans drawn for new, modern quarters estimated to cost $35,000.

An annex to the Ingleside Hospital, Canton, O., increasing the capacity of the institution 20 beds, will probably be built this year.

A new administration building, erected at a cost of $135,000, will soon be opened by the New Haven Hospital, New Haven, Conn.

Dr. C. S. Lawrence, Winston-Salem, N. C., will soon begin the erection of a modern surgical hospital to accommodate 20 patients.

The Lebanon Hospital is a new corporation at Lebanon, Tenn., formed to establish a general hospital and a training school for nurses.

Arizona has had a county hospital law since March 3, when a measure passed by the legislature of that state was signed by the governor.

A hospital will be built at Crockett, Cal., this summer jointly by the California & Hawaiian Sugar Company and the Selby Smelting Company.

The new hospital which is being erected by the Sisters of St. Joseph, Kalamazoo, Mich., is to be ready for occupancy by September 1, 1917.

Dr. Philip Donahoo, formerly of Joplin, Mo., has lately

purchased a hotel building at White Salmon, Wash., and fitted it up for hospital purposes.

Prominent women of Jeffersonville, Ky., have organized the Jeffersonville Hospital Association, with the view of establishing a community hospital.

Miss Harriett R. Adams, of Washington University, St. Louis, has accepted an appointment as instructor of nurses at the Cleveland (O.) City Hospital.

Mrs. Lemuel MacManness has resigned as head of the Findlay Home and Hospital, Findlay, O., and Mrs. M. D. Neff has been appointed to the position.

It is reported that a hospital is to be established at Crane, Ore., with Mr. and Mrs. W. C. Brady as managers and Dr. L. H. Vincent as chief physician.

A new, modern, fireproof plant is being planned for the Methodist Deaconess Hospital at Rapid City, S. D. The first unit will probably be erected this year.

A movement for the erection of a $50,000 hospital for negroes is under way at Durham, N. C. Wealthy white citizens are contributing to the building fund.

The Altoona Hospital, Altoona, Pa., has recently added to its facilities a specially equipped department for the treatment of eye, ear, nose and throat diseases.

The Philadelphia General Hospital has recently completed a glass-enclosed extension to its tuberculosis building. The new structure accommodates 84 patients.

Dr. Austin G. Byrd, who attends the sick and injured employees of the Federal Mining and Smelting Company at Bellvue, Idaho, is fitting up a private hospital at that place.

A movement for the establishment of a general hospital is under way at Escondido, Cal. The promoters plan to purchase a hotel building and remodel it for hospital purposes.

Miss E. A. Castle has resigned the superintendency of the Little Falls Hospital, Little Falls, N. Y., and Miss Hunter, of Waterbury, Conn., has been appointed to succeed her.

Plans are being made by the authorities of Dubuque County, Iowa, for the erection of a tuberculosis hospital, for which the county has voted an appropriation of $75,000.

The Oregon State Board of Control has commissioned Architect L. W. Thompson, of Portland, to draw plans for a hospital to be erected at the Oregon Soldiers' Home at Roseburg.

Miss Ione Ray has lately succeeded Miss Mae Alworth as superintendent of the Civic League Hospital, Jackson, Tenn. Miss Alworth was in charge of this hospital for five years.

A new home for the hospital at Chico, Cal., conducted by the Sisters of Mercy, will be erected this spring. The building will be a modern steel and concrete structure, costing $50,000.

The Graham Hospital, Rochester, N. Y., has been sold and will no longer be used for hospital purposes. Dr. C. J. Graham, who controlled the institution, will resume private surgical practice.

More than $100,000 has been raised by the Milwaukee Children's Hospital toward meeting the terms of a gift of $150,000, which is conditioned on an equal amount being secured from other sources.

Dr. G. L. Gillam, of Cody, Wyo., has purchased a two-story and basement commercial building at Cody and is having it remodeled for a hospital, which he hopes to open about the first of April.

The Lane Hospital, San Francisco, has under construction a new, five-story surgical annex, which it expects to open next fall. The building will cost about $500,000 and is designed to accommodate 160 patients.

The sisters conducting St. Mary's Infirmary at Cairo, Ill., find it necessary to increase the capacity of this institution, provide new operating rooms, etc., and are having plans drawn by Architects Barnett, Haynes & Barnett, of

St. Louis, for a two-story addition, estimated to cost $30,000.

Mrs. E. H. Hoeppner, R. N., for the last three years assistant superintendent and dietitian at the Hamot Hospital, Erie, Pa., has resigned this position to take charge of the Bon Air Sanatorium at Bradford, Pa.

St. Joseph's Hospital, San Francisco, is having plans prepared for a six-story "Class A" building to be erected in the near future on its present site at Park Hill and Buena Vista avenues, at a cost of $600,000.

The Syracuse Hospital for Women and Children, Syracuse, N. Y., is to have a new home for its nurses, the erection of such a building having been made possible by a bequest from the late Frederick R. Hazard.

Miss Winifred Rooney, for the last two years superintendent of the Saratoga Hospital, Saratoga, N. Y., has resigned this position to become an instructor of nurses at a hospital at Gloversville, in the same state.

Drs. Campbell and Baker, who conduct a private hospital at Tilden, Neb., have purchased residence property at Norfolk, in the same state, with the view of removing to the latter city and establishing a similar institution.

A new $10,000 clinic was opened at the Cincinnati General Hospital March 3. The clinic is a gift to the institution by Charles Boldt, one of the city hospital commissioners, who has also provided for its maintenance for five years.

The former Mission Hospital at Tropico, Cal., is under new management and the name of the institution has been changed to "Relax Home and Hospital." Mrs. Grace M. Rottner is superintendent and Dr. B. L. Baker house physician.

The Homeopathic Hospital, Pittsburgh, Pa., is to have a new maternity building, which will be erected this year and presented to the institution by Dr. C. F. Bingman, of Pittsburgh, as a memorial to his deceased mother, wife and sisters.

The Johns Hopkins Hospital has been required by the city of Baltimore to take out licenses on dogs kept at the laboratory of the institution for vivisection and experimental purposes. The question was in dispute for more than a year.

A movement for the establishment of a community hospital has been inaugurated at Princeton, N. J. A fund of $30,000 for the endowment of such an institution is already available and it is proposed to use an unoccupied building owned by the city.

Construction work has been started at Laurel, Miss., on a general hospital to be erected and maintained by the state. The building will cost approximately $75,000. Similar state institutions have long been in operation at Natchez and Vicksburg.

The establishment of a central hospital in Chicago, in connection with the University of Illinois, to care for inmates of the Illinois state institutions who can be cured by operations, is urged by Dr. Edward H. Ochsner, president of the state board of charities.

The Hancock Public Hospital Association, recently organized at Hancock, Mich., has purchased a large residence which it will convert into a community hospital. With an addition, which will be erected in the near future, the building will accommodate 30 patients.

The El Dorado Hospital Company has recently been organized at El Dorado, Ark., with Dr. F. O. Mahoney as president, Dr. J. A. Moore vice-president, and Dr. L. L. Purifoy secretary and treasurer. A residence property has been leased and will be converted into a hospital.

Mrs. Marguerite Burris Murchison, R. N., a graduate of Charity Hospital, New Orleans, who has done postgraduate work in New York and England, has recently accepted an appointment as superintendent of nurses at the Southwestern Insane Asylum, San Antonio, Texas.

Dr. B. E. Miller has recently opened a ten-bed hospital at Council Grove, Kan. The major surgery at the institution will be done by Drs. McClintock and Bowen, of Topeka. Miss Una Fry, a graduate of Kansas City and

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Former quick gelatine desserts never came in Pineapple flavor.

This popular flavor must be sealed in vials, else it deteriorates. And Jiffy-Jell flavors are sealed.

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Note what you gain as compared with the flavors which come mixed with the gelatine powder.

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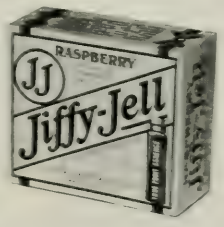
Jiffy-Jell is the only quick dessert made with Waukesha Gelatine. This is an extra grade, of which little is produced. It costs us twice as much as the common.

This gelatine has no taste, no aroma. It is sweet and neutral. So Jiffy-Jell tastes only of the true fruit flavors.

Jiffy-Jell was created by Otis E. Glidden, the famous gelatine expert. It is made under his direction in the model food plant of America.

It will change your whole conception of gelatine desserts.

We send trial lots free to hospitals. And we now make a hospital size—a size which makes from 12 to 16 dishes. Write us for samples and recipes.



WAUKESHA PURE FOOD COMPANY, Waukesha, Wis.

Detroit hospitals, will be in charge of the nursing. Miss Fry has lately returned from Servia, where she spent two years nursing sick and wounded soldiers.

Construction work will soon be started on extensions to the Henry Ford Hospital, Detroit, Mich., designed to increase the capacity of the institution 800 beds. Seventy-five patients can now be cared for in the initial unit of the hospital, which has been in operation for more than a year.

It is announced from Gary, Ind., that Miss M. E. Pritchard, owner and superintendent of the Gary General Hospital, will present to the city of Gary this entire institution, accommodating about 35 patients, as a nucleus for a large, modern plant, which an association is now being organized to develop.

By vote of the supervisors of Kalamazoo County, Mich., it was decided to engage a medical director for the indigent patients of the hospital sanatorium. Up to this time this has been conducted as an open hospital, any patient having the privilege of selecting any physician willing to take over his case.

Miss Gertrude Creasy, surgical nurse at the Multnomah County Hospital, Portland, Ore., has recently succeeded Mrs. Alta B. Spaulding as superintendent of this institution. Miss Mae V. Eidemiller, of the Good Samaritan Hospital, Portland, will be head nurse at the county hospital under Miss Creasy.

The Hackensack Hospital, Hackensack, N. J., opened a new fireproof home for its nurses March 3. The building is a gift of former Senator William M. Johnson, of Hackensack, and cost $50,000. It is a three-story brick and stone structure of Georgian architecture, with accommodations for 33 nurses.

The Sisters of Charity have opened a hospital in temporary quarters at 2219 Madison avenue, Toledo, O., awaiting the completion of a $100,000 building, which they will erect on an adjoining plot this summer. Mother Bernardine, formerly of the Mercy Hospital, Tiffin, O., will conduct the new institution.

Mrs. Mary Eden, for several years superintendent of the Columbia Hospital, Pittsburgh, Pa., will take charge of the Aiken Hospital at Aiken, S. C., April 1. The Aiken Hospital is a new institution being established by the Aiken Hospital Association. It will be housed in a new building, erected at a cost of $50,000.

Mercy Hospital, Benton Harbor, Mich., is being reorganized under the superintendence of Miss Mae Fye. To meet the increasing needs of the community, an addition is contemplated, which will give a capacity of sixty beds. A laundry has been added, a department which has created a saving of one-half of the former cost.

By the will of the late William A. Linn, of Hackensack, N. J., who died February 23, the sum of $20,000 is left for the establishment of a hospital in the village of Sussex, N. J., as a memorial to the testator's father, Alexander Linn. William A. Linn was for twenty-seven years managing editor of the New York *Evening Post.*

W. B. Plunkett, treasurer of the Berkshire Cotton Mills, Adams, Mass., is having plans drawn for a hospital which he will erect and present to the city of Adams. Tentative sketches provide for 25 private rooms, a ward for men, a maternity ward, and an additional ward for women. The construction work will be started this spring.

Jersey City, N. J., is building a school for crippled children, to be operated in connection with the Jersey City Hospital. The building will be a three-story and basement fireproof structure, costing about $110,000. Specially designed class rooms, special toilets, corrective gymnastic equipment, and ramps instead of stairways will be features.

Dr. S. B. Ragsdale was installed as superintendent of the Bushwick Hospital, Brooklyn, N. Y., on March 1, vice Miss Jean MacDonald, resigned. Dr. Ragsdale is a native of Alabama and a graduate of the University of Nashville. He was formerly superintendent of the Seaside Hospital of St. John's Guild, at Staten Island. Other changes have recently been made at the Bushwick Hospital. They include the appointment of Miss Mabel Ward, formerly of the Presbyterian Hospital, of New York city, as super-

visor of the surgical ward, and of Miss Elsa Curry, a graduate of Pratt Institute, as chief dietitian. Miss Jean Haymon, of the Presbyterian Hospital, has been made supervisor of the nurses' training school, succeeding Mrs. Mary McCabe.

An organization looking toward the erection in the near future of a general hospital to cost $150,000 has been formed at Palm Beach, Fla., under the name of "Good Samaritan Hospital Association." Officers for the ensuing year are: A. F. Huston, president; L. Trevette Lockwood, vice-president; Mrs. C. C. Chillingworth, secretary; and Frank W. Dimick, treasurer.

As both the Deaconess Hospital and St. Luke's, of Spokane, Wash., are preparing to build entire new plants, the suggestion is made by the Spokane Ministerial Association that the two institutions could render greater service to the city by combining their funds and building a larger hospital, and it appears that the question of the advantages of consolidation is having serious consideration.

The El Retiro Sanitarium, a new institution established at San Fernando, Cal., by the San Fernando Sanitarium Company, has recently been opened for patients. The plant was erected at a cost of $50,000 and consists of an administration building, refectory, a nurses' dormitory, two bath houses, and 24 cottages for patients, each cottage designed for one patient only. Dr. Margarite Gilleland is the resident physician.

The Rensselaer County (N. Y.) supervisors have invited competitive plans from architects for a tuberculosis sanatorium of the cottage type, which, it is specified, shall have "living accommodations for 200 patients and 50 physicians, nurses and employees." None of the buildings is to be more than two stories high above a basement, and the cost of the group complete is not to be more than $135,000 plus the architect's fee.

The University of Michigan Hospital at Ann Arbor is said to have the only clinic in the United States devoted exclusively to surgical treatment of cleft palate and harelip. More than one hundred cases of these deformities were treated in this institution last year and patients ranged from infants two days old to adults of 40 years. The department is under the direction of Dr. Chalmers J. Lyons, professor of oral surgery.

The will of the late Dr. Stacy B. Collins, of Seaford, Del., recently filed for probate, contains bequests of $10,000 each to the Pennsylvania Hospital, Philadelphia, the New York Hospital, New York city, the New York Academy of Medicine, and the state of New York, the bequest to the state to be devoted to medical research. Dr. Collins made his fortune in New York, but retired a few years ago and has since lived at Seaford, his birthplace.

The Retreat for the Sick, said to be the oldest charity hospital in Richmond, Va., also the oldest non-denominational hospital in the South, will soon launch a campaign to raise $150,000 for the erection of a new home. It is planned to double the capacity of the institution, which is now 50 beds. For its forty years of service the Retreat for the Sick has a record of 87,237 days of charity treatment, this referring to bed patients only. No dispensary is maintained.

The Sisters of the Sorrowful Mother are considering the erection at Tulsa, Okla., of a hospital which will be an exact duplicate of the new St. Joseph's Hospital at Kansas City, described in the January number of THE MODERN HOSPITAL. The plan of the Tulsa institution, however, contemplates the completion of only four stories at the beginning, the other two stories to be added as needed. It is said that a large part of the necessary building fund is already assured.

Kalamazoo State Hospital has employed a trained occupational director in the person of Mrs. Anna M. Tompkins, formerly of the Danvers State Hospital. Rugs and hangings for the new nurses' home, as well as all of the furniture but the beds, are being made by patients under skilled direction in the new industrial building. A canning department is one of the late improvements of this progressive institution; a new laundry is to be started this fall, if appropriations are granted.

After an illness lasting about one week, Dr. Elmer Newcomer, superintendent of the Maryland General Hos-

pital, of Baltimore, died at that institution March 11, of blood poisoning. The cause of the infection was unknown. Dr. Newcomer assumed the position of medical superintendent at the Maryland General Hospital in June, 1916, going from the University of Maryland Hospital, where he had been assistant superintendent. The first of this year he was made general superintendent, combining the duties of chief medical officer and business manager.

The Bowling Green Mineral Springs Company, Bowling Green, Mo., operating the Bowling Green Sanitarium, has lately been reorganized and is planning a new four-story building to cost $150,000. The fourth floor of the structure will offer hospital accommodations for surgical cases, the third floor for medical cases, and the two lower floors will serve as a hotel for convalescents and pleasure seekers. The equipment will include special baths, a swimming pool, billiards, gymnasium, etc. Mr. W. E. Kleppish has recently been installed as superintendent.

In order to escape taxation, hospitals must be simonpure public charitable institutions, according to a decision of the supreme court of Ohio. They may accept pay from patients, but the receipts must go into the hospital fund and cannot be diverted by donors of the original fund. Pay patients can be accepted only when all facilities are not taken up by indigent patients, the court holds. In the case in question, the treasurer of Cuyahoga County is enjoined from collecting taxes on Grace Hospital, Cleveland, which, the court held, comes under its definition of charitable hospitals.

Dr. Henry Leber Coit, founder of the Babies' Hospital, Newark, N. J., said to be the first hospital of the kind in the United States, died at his home in Newark March 13, of pneumonia. Dr. Coit was a specialist in children's diseases, and during his career was consulting physician at many institutions, including St. Vincent's Foundling Asylum, Montclair, N. J., and the Home for Crippled Children in Newark. He was the promoter of the movement in New Jersey for certified milk and became the first president of the American Association of Medical Milk Commissioners.

The announcement is made from Tokio that the raising of $500,000 to build the proposed St. Luke's International Hospital in that city has been completed. Twenty-five thousand dollars of the fund was contributed by Emperor Yoshihito and $75,000 by other Japanese. The remainder has been contributed or pledged in the United States. The new hospital will replace the present St. Luke's Hospital, founded by the American Episcopal Mission many years ago. Dr. R. B. Teusler, the present director, will have charge of the enlarged institution, upon which work will be started soon.

El Dorado, Kan., will be benefited as a result of a misfortune by which A. M. Appleman, a wealthy oil man, was overtaken there recently. Mr. Appleman was dangerously injured in an accident at an oil well. No hospital facilities being available, a special train was chartered to take him to another city for treatment, but his condition was found to be such that he could not be moved and he was forced to remain in El Dorado and take the best care he could get outside of a hospital. "When I am well again," he said a few days ago, "I am going to donate enough money to build a modern hospital here."

Tampa, Fla., is to have a new, modern hospital with accommodations for 60 to 75 patients. The institution will bear the name of the late Dr. William Pitt Lawrence, of that city. Those responsible for the undertaking are Dr. J. O. Helms, Dr. J. C. Vinson, Dr. Leland F. Carlton, Dr. Joseph Mickler, Dr. W. M. Rowlett, Dr. C. W. Bartlett, Dr. Joseph W. Taylor, Dr. C. J. Caraballo, Dr. E. W. Bitzer, Dr. C. A. Andrews. A corporation with Dr. Helms as president, Dr. Carlton as vice-president, Dr. Andrews as secretary, and Dr. Bitzer as treasurer, has been formed and plans for a building are in course of preparation.

St. Andrew's Hospital, Murphysboro, Ill., opened in February what is, for all practical purposes, an entire new plant. The main building of the institution has been completely overhauled, two additions have been erected and much new equipment, including an up-to-date x-ray outfit, has been installed. The improvements have doubled the capacity of the institution, which will now have accommodations for 70 patients, with space to care for many more

The Hospital Fly

Hospital authorities know they cannot entirely prevent flies from entering. A few will get in despite careful screening, but

No Fly Should Be Allowed to Leave a Hospital or Sick-Room

It seems hardly necessary to call attention to the importance of preventing flies from leaving any room in hospital or home where there is a known or suspected communicable disease.

For the safety of the public, as well as the protection of the patients in the hospital, the hospital should be kept as nearly as possible free from flies.

Neither traps, poisons, nor fly-swatters destroy the germs which alone make the fly dangerous.

The Sanitary Fly Destroyer Par Excellence

is one that destroys the germs with the flies. Tanglefoot does this by coating both flies and germs with a varnish from which there is no escape. A fly caught on a sheet of Tanglefoot is embalmed.

In the war that is being waged on flies, Tanglefoot is the greatest agent, and destroys in a sanitary way over fifty billion flies annually, vastly more than all other means combined.

The originators of Tanglefoot Fly Paper builded better than they knew, for, since the discovery that flies are such important agents in the carrying of typhoid and other diseases, Tanglefoot Fly Paper has come to be recognized as one of the great sanitary agencies of the day.

Government Issues Warning Against Fly Poisons

Following is an extract from "The Transmission of Disease by Flies," Supplement No. 29, to the Public Health Reports, April, 1916:

"Of other fly poisons mention should be made, merely for the purpose of condemnation, of those composed of arsenic. Fatal cases of the poisoning of children through the use of such compounds are far too frequent, and, owing to the resemblance of arsenical poisoning to summer diarrhea and cholera infantum, it is believed that the cases reported do not, by any means, comprise the total. Arsenical fly-destroying devices must therefore be rated as extremely dangerous, and should never be used, even if other measures are not at hand."

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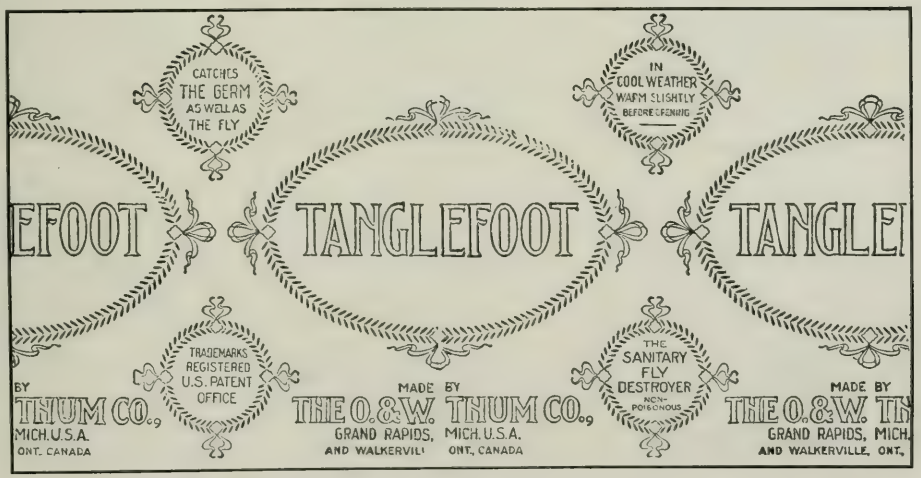

THE O. & W. THUM COMPANY, GRAND RAPIDS, MICH.

in case of emergency. The hospital is conducted by the Franciscan Sisters, whose work in the institution during the twenty years of its existence is highly praised by the local press.

The Bethesda Hospital, a new nonsectarian hospital with room for 50 patients, was opened at Hornell, N. Y., in March. The building was an abandoned clubhouse, which has been remodeled and equipped for hospital purposes, money for the undertaking having been raised by popular subscription. Miss Edith B. Smith, a graduate of the Gynecean Hospital, of Philadelphia, class of 1908, is the superintendent. She is assisted by Miss Alice V. King, also a graduate of the Gynecean Hospital, and a corps of competent nurses. A campaign is now being conducted by the board of trustees for the purpose of providing a fund of $40,000 for maintenance.

St. Elizabeth's Hospital, Brighton, Mass., will dedicate a fine new home for its nurses about April 1. The building is a five-story brick structure, stucco finish, with roof garden laid in tile. The interior is finished with North Carolina pine and the floors are concrete, topped with hardwood. On the first floor are accommodations for 25 maids, beside lounging and sleeping quarters, living rooms, kitchenette, and a small hand laundry for the nurses. On the second floor is the lecture room, demonstration room, parlors, small reception rooms, library, infirmary, and the suite of the superintendent of the training school. The third, fourth, and fifth floors are reserved for the sleeping quarters of the nurses, with 20 rooms on each floor for this purpose.

The engagement and approaching marriage of Miss Jennie M. Quinn, superintendent of the Hattiesburg Hospital, Hattiesburg, Miss., to Mr. James A. Cameron, of that city, is announced. Miss Quinn has been at the head of the Hattiesburg Hospital for the last seven years, during which time she is said to have developed this institution to a very high standard of efficiency, both in the care of patients and the training of nurses. She took a prominent part in organizing the Mississippi State Association of Graduate Nurses, of which she was president for nearly five years. She is now secretary of this association and a member of the State Board of Examiners of Nurses. Miss Quinn received her nurse's training in the state general hospital at Scranton, Pa.

A bill which would forbid any hospital seeking public patronage to exclude from medical or surgical practice within the institution any physician licensed by the state has been introduced in the Wisconsin legislature. Those favoring the bill assert that a state license to practice medicine and surgery should be sufficient for admission to any hospital, and that it is the function of the state rather than of the hospital to decide whether a doctor's work is good or bad. Those opposing the measure take the position that few, if any, competent doctors are excluded from public or semi-public hospitals, and that a hospital should have the right to exclude any doctor, and especially any surgeon, whose work is known to be bad, regardless of what the state says about it, since poor work on the part of a doctor damages the reputation of the hospital.

Dr. William De Kleine, who is directing a tuberculosis survey and educational campaign for the state of Michigan, voices his opposition to a movement for the erection of a tuberculosis sanatorium by the state. Dr. De Kleine is of the opinion that the county and community plan of establishing sanatoriums is the most effective and that even this is a failure except when the people have been educated to the need of a sanatorium and the benefits to be derived from it. Dr. De Kleine advocates the free public clinic as a preliminary step in securing interest toward the establishment of a sanatorium. Through such clinics Dr. De Kleine and his assistants have examined more than 16,000 persons for tuberculosis, and only about four percent of those found to be tuberculous knew that they had the disease. "If the people of a community do not know there is tuberculosis among them, they are not going to use a sanatorium, even if the state builds one for them," he says, "but when they become thoroughly educated on this point the demand for a sanatorium is spontaneous." Two Michigan counties have already voted to build sanatoriums as a result of Dr. De Kleine's campaign, and in 18 others the question is being strongly agitated.

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Better furnished and more attractive private rooms that will attract the "pay-patient" who wants and is willing to pay for the best

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Compare the private rooms and general furnishings of those hospitals always "filled to capacity" with the rooms and furnishings of those institutions "barely getting along." You will then appreciate the bearing good furniture has on the successful operation of the present-day hospital.

American people want the best. Most of them can afford the best and are willing to pay for it. The majority of them go where they can get it.

Well-furnished private rooms will not only attract more of this class of patients to your hospital, but they will also prove a source of increased revenue to your institution, which will permit you to more extensively carry out the work for which your hospital has been established.

NORTHWESTERN FURNITURE, because of its artistic yet solid and sanitary construction, is ideal for hospital purposes—private rooms, reception rooms, nurseries, porches, and nurses' homes. The complete line is shown in our new Catalog No. 51, and we would like to send you a copy regardless of whether you are in the immediate market for furniture. No obligations. Let us mail you a copy today.

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CENTRAL REGISTRY FOR NURSES OF THE NEW YORK COUNTY Registered Nurses' Association Agency, 132 East Forty-fifth street, New York City; telephone Murray Hill 8700; Irene B. Yocom, R. N., registrar. Graduate nurses for institutional positions and for private duty. Hourly nurses.

SUPERINTENDENCY AND PRINCIPAL OF TRAINING SCHOOL of medium-sized hospital is position desired by registered graduate nurse; references. Address K. M. A., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

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POSITION AS CLASS INSTRUCTRESS IN TRAINING SCHOOL FOR nurses wanted by registered nurse with large experience in executive work. West or Middle West preferred. Address S. E. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

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REGISTERED NURSE WITH EXPERIENCE IN TRAINING SCHOOL and hospital administration wishes position as superintendent of hospital. Address B. E. N., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION AS SUPERINTENDENT OF 100-BED HOSPITAL wanted by registered nurse experienced in hospital construction and organization; good financier; at present employed. Address C. D. L., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

PHYSICIAN OPEN FOR ENGAGEMENT IN INSTITUTION OR hospital; can operate electro-cardiograph or x-ray apparatus, or combine both; thoroughly practical; teaching or post-graduate institution preferred. Address Dr. J. F. P., 109 East Sixty-first street, New York City.

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WANTED BY GRADUATE NURSE, POSITION AS SUBSTITUTE for superintendent of hospital, or would take position to assist at reorganizing a hospital and nursing school. Address S. T. T., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

Continued on page 50.

CLASSIFIED ADVERTISING.

Continued from page 48.

POSITIONS WANTED—Continued.

WANTED BY REGISTERED NURSE WITH SPECIAL TRAINING and experience, position as superintendent of hospital. Address A. B. C., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

UNIVERSITY GRADUATE WITH EXPERIENCE IN LARGE HOSpital desires position as dietitian in up-to-date hospital. Address A. F. N., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

A GRADUATE R. N. DESIRES POSITION AS NIGHT SUPERINtendent or the superintendency of a small hospital. Address F. F. F., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION AS ASSISTANT SUPERINTENDENT IN GENERAL hospital by married physician 33 years old; anxious to study administration; 2½ years' hospital experience; 8½ years mine surgeon; willing to live in hospital. Address J. J. D., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION AS SUPERINTENDENT OF SANATORIUM FOR TUBERculosis or small general hospital desired by graduate nurse with excellent executive ability; A1 credentials. Address M. J. D., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION AS SUPERINTENDENT OF HOSPITAL OR TRAINING school wanted by graduate of a large New York hospital; East preferred; at present superintendent of small hospital. Address E. M. S., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

SUPERINTENDENCY OF HOSPITAL OR TRAINING SCHOOL wanted by graduate registered nurse; training received in large hospital, also graduate of a standard college for women; now superintendent of medium-sized hospital; salary under $100 per month not considered. Address C. V. M., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

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Continued on page 52

CLASSIFIED ADVERTISING.

Continued from page 50.

POSITIONS OPEN—Continued.

GRADUATE HOSPITAL NURSES WANTED; TWO FLOOR NURSES; salary, $40 and maintenance; and one surgical nurse; salary, $60; must be competent and come well recommended. Address Dr. Frederick Greenbaum, West Frankfort, Ill.

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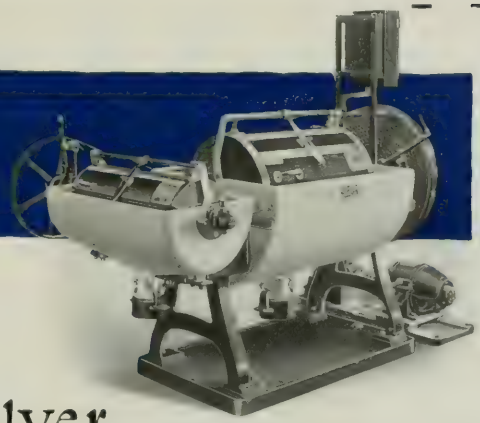
Continued on page 54.



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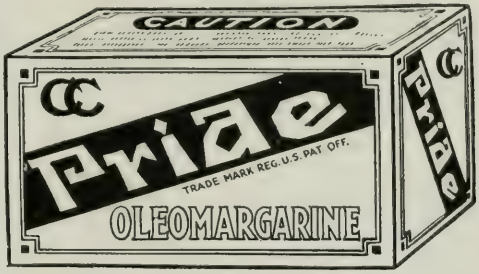

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MARGARINE

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C. C. PRIDE MARGARINE is made from 100 percent pure products and in the most sanitary manner devisable, both the product and its manufacture being under the constant inspection of a representative of the U. S. Agricultural Department, stationed at our factory.

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CLASSIFIED ADVERTISING.

Continued from page 52.

MISCELLANEOUS—Continued.

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CLASSIFIED ADVERTISING.

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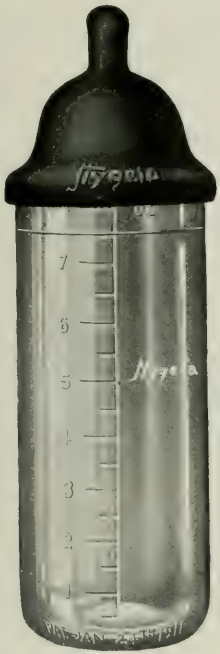
MISCELLANEOUS—Continued.



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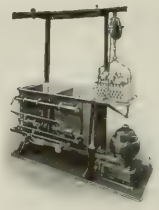
SOCIETY	PRESIDENT	SECRETARY	NEXT MEETING
American College of Surgeons	Dr. J. M. T. Finney, 1300 Eutaw Pl., Baltimore	Dr. Franklin Martin, 30 N. Michigan ave., Chicago.	October 26, New York
American Hospital Association	Dr. Robert J. Wilson, superintendent New York Hospitals, New York	Dr. William H. Walsh, Philadelphia	September 11, 1917, Cleveland
American Medical Association	Dr. Rupert Blue, Bureau of Public Health Service, Washington, D. C.	Dr. Alex. R. Craig, 535 N. Dearborn st., Chicago	June, 1917, New York
American Nurses' Association	Anne W. Goodrich, R. N., Teachers' College, Columbia University, New York	Katharine DeWitt, R. N., 45 S. Union st., Rochester, N. Y.	April 25–May 2, 1917, Philadelphia
Catholic Hospital Association	Rev. C. B. Moulinier, Marquette University, Milwaukee, Wis.	Dr. B. F. McGrath, Marquette University, Milwaukee	August 29-31, 1917, Chicago.
Clinical Congress of Surgeons of North America	Dr. Fred B. Lund, 527 Beacon st., Boston	Dr. Franklin H. Martin, 30 N. Michigan ave., Chicago	October 22, New York
National League of Nursing Education	Sara E. Parsons, R. N., Massachusetts General Hospital, Boston	Effie J. Taylor, R. N., Johns Hopkins Hospital, Baltimore	April 25–May 2, 1917, Philadelphia
National Organization for Public Health Nursing	Mary F. Beard, R. N., 551 Massachusetts ave., Boston	Ella Phillips Crandall, R. N., 25 W. 45th st., New York	April 25–May 2, 1917, Philadelphia
State Hospital Associations			
Kansas Hospital Association	Dr. Samuel Murdock, Sabetha, Kas.	Dr. W. R. Dillingham, Halstead, Kas.	May 1, 1917, Salina
Ohio Hospital Association	Rev. A. G. Lohmann, superintendent German Deaconess Hospital, Cincinnati, O.	Howell Wright, 308 Anisfield Building, Cleveland, O.	May 22–24, 1917, Columbus
West Virginia Hospital Assn.	Dr. Wm. A. McMillan, superintendent McMillan Hospital, Charleston, W. Va.	Dr. W. H. St. Clair, superintendent Bluefield Sanitarium, Bluefield, W. Va.	May, 1917, Wheeling
Canada			
Canada Hospital Association	Dr. E. H. Young, Rockwood Hospital for the Insane, Kingston, Ont.	Dr. W. J. Dobbie, Toronto Free Hospital, Weston, Ont.	
England			
British Hospital Association	H. Wade Deacon, Royal Infirmary, Liverpool	Conrad W. Thies, J. Courtney Buchanan, Metropolitan Hospital, London	



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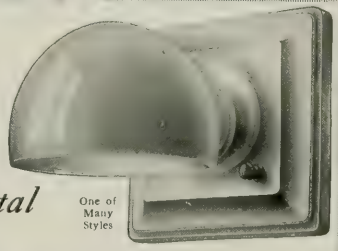

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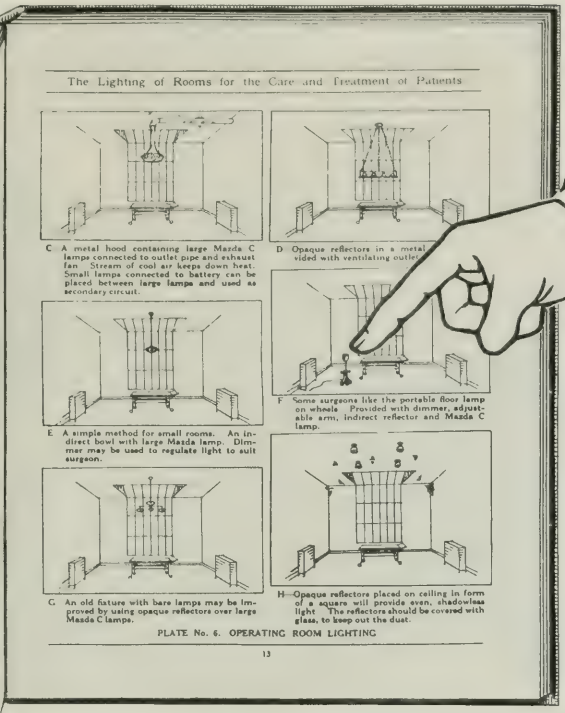

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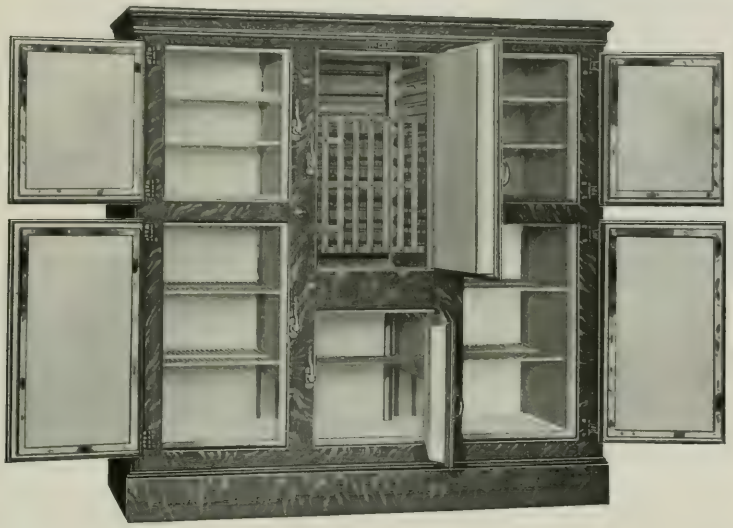

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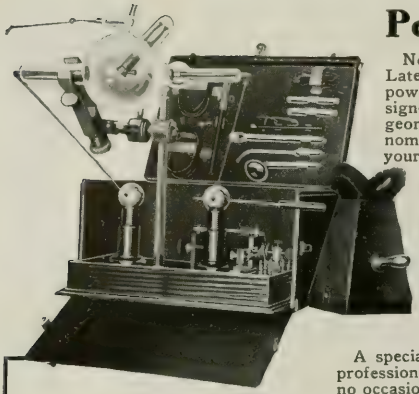

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The Work of the Charles B. Towns Hospital—

What it does for the Patient—

How it cooperates with the Medical Practitioner and with the Hospital in the Treatment of Patients of Addict Type.

By CHARLES B. TOWNS, CHARLES B. TOWNS HOSPITAL, NEW YORK CITY

PART II

UNUSUAL HOSPITAL FACILITIES

First of all, to give you some idea of the unusual situation of this Hospital and of the advantages it has for carrying on a helpful personal work for its patients, let me point out that the Hospital building itself faces Central Park, overlooking it at its highest point, with the fashionable residence section of Fifth Avenue in the distance. There is no more beautiful view of the Park to be had anywhere. There is a park entrance immediately at our door, and we are within two minutes' walk of the great Croton Reservoir, which has a one and three-fourths miles' walk around it, while the Drive and Bridle Path are right in front of us.

The Metropolitan Museum of Art is within sight, and can be reached by a ten minutes' walk across the Park. The American Museum of Natural History stands on the same street with ourselves (Central Park West), and is only a few blocks away. Within a ten minutes' walk is Riverside Drive and the Hudson River. Subway, elevated, and street car lines are at hand to carry one quickly to the centers of amusement and business, uptown and downtown, respectively. I would not exchange the situation of this hospital or its equipment and facilities for those of any other institution that I know anything about, city or country.

RESIDENT AND CONSULTING STAFF

The Hospital building itself is a modern apartment house of the best New York City type, practically reconstructed for its present purpose. The work of reconstruction was done under the supervision of specialists, and has been approved by the New York City Building, Fire, and Health Departments after rigid inspection.

A feature of the structure as it now stands is a roof garden and solarium, which provide open-air recreation the year around, being open and shaded in summer and inclosed and warmed in winter. The view of the Park from this point, or from our front windows, is unexcelled, and affords an interesting outlook every day of every season in the year.

The Hospital work is directed by a staff of five physicians, who are resident in the house or continuously in attendance, and is carried out under the most exacting standards of modern hospital practice. The consulting staff is composed of a group of practitioners known to the medical profession throughout the country.

A complete bedside history of every case is carefully kept, with such clinical notes and observations as may assist both our staff and the patient's own physician in their study of the case in its sociological relations, as well as its solely medical aspects.

PATIENT'S PHYSICIAN WELCOME

All doctor's orders are written, and there is a careful clinical checking up of each case every day. As there are no secret remedies employed in our treatment, the physician, when visiting his patient, is thus in a position to follow the patient's treat-

ment in every detail as recorded by a study of the bedside chart and the staff doctor's orders.

The utmost care is given to diet, but the diet provided is of a sort dictated by long experience and common sense rather than over-insistence on any ideas of "scientific nutrition." All meals are served in the patients' rooms and every care is taken to make the service as inviting as possible.

Patients are afforded the utmost privacy. They are secluded almost to the point of isolation, and during their stay come in contact only with their physician, nurse, and attendant, and are visited by such of their friends as they may desire to see—though needless sociability that would unduly distract or disquiet the patient is discouraged or even forbidden. The patient's presence in the Hospital is thus known only to a few, and the Hospital has no desire whatsoever to discover the identity of those who (as sometimes happens) may choose to enter the institution under assumed names.

"INSTITUTIONALISM" BANISHED

Every effort is made—and, be it said, with success—to banish all taint of institutionalism from the Hospital and to maintain for it the character of a well-conducted club or a hotel of exclusive character. Gratuities to attendants are forbidden, and it will not be found necessary to dispense "tips" to secure whole-hearted service from every one connected with the establishment.

The accommodations of the Hospital are varied, so that arrangements may be made according to the means of the patient or as demanded by his personal tastes, however exclusive these may be. A number of suites with private bath, extension telephone at bedside, and individual nurse are provided and may be had at prices proportionate to the character of their accommodation.

On the other hand, the patient of moderate means can always be accommodated; this only, however, after our advisement with his physician in regard to the matter and on his physician's recommendation. But, rich or poor, well-to-do or of moderate means, medical treatment and hospital service are wholly and unreservedly the same for all.

ONE FEE COVERS ALL CHARGES

The definite character of our medical treatment and the known period of time in which the definite results of medication are obtained make it possible to make a flat and all-inclusive fee for the Hospital work, so that the expense to be incurred is ascertainable in advance, and thus may be controlled by the patient or his sponsors. This fee covers all charges, with no "extras" of any kind whatsoever.

When the patient leaves this Hospital he is not confronted by a bill of extras long enough to remind him of a summer resort experience, where everything was "extra," from calling for a pitcher of ice-water to saying "good morning" to his waiter at the breakfast table. As stated, there is no tipping permitted here—every service is cheerfully done without the everlasting hand out for a gratuity. There is one, but one and *only* one, fee to pay, and it covers everything in treatment, entertainment, and attendance.

ADVANTAGES OF "FLAT FEE" PLAN

The charge for institutional treatment in the Physical Department, following medical treatment in Hospital, will of course vary with the length of stay, depending on the requirements of each case; but these requirements and the length of the patient's stay for treatment by physical therapy are invariably determined in counsel with the patient's physician.

As there can be no profit to the Hospital in prolonging a patient's residence beyond the period of medical treatment and adequate physical recuperation, the advantages of the Hospital's "flat fee" system must be apparent.

The CHARLES B. TOWNS HOSPITAL

NEW YORK CITY

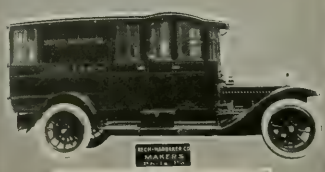
This is the second of a series of three advertisements to appear consecutively in THE MODERN HOSPITAL describing in detail the work of the Charles B. Towns Hospital for Drug and Alcoholic Addictions. Medical reprints and booklets about the hospital mailed upon request.

DIRECTORY OF SANATORIUMS—INSTITUTIONS FOR NERVOUS AND MENTAL DISEASES

Ambulance Service

Increases Efficiency

An ambulance is part of a hospital's service. Without an ambulance the best hospital in the world lacks efficiency. It is helpless in emergencies. It cannot serve the community as it is a hospital's mission to do.



State Hospital, Hazelton, Pa.

Comfort for the Patient

An ambulance must offer the maximum of comfort. For the sick comfort is a necessity, not a luxury. The ambulance must ride easily, and it must be designed so that patients may be handled without danger of injury.

Pottsville Hospital, Pottsville, Pa.

Presbyterian Hospital, Philadelphia, Pa.

Department of Safety, Utica, N. Y.

Jefferson Hospital, Philadelphia, Pa.

First Aid Conveniences

The ambulance must also be designed with the attendant in mind. Every article of first aid in fracture, wound, or suffocation should be convenient to his hand. Lighting and ventilation, working space, hot and cold water, are also subjects of careful planning.

German Hospital, Philadelphia, Pa.

Concerning Ourselves

We have made ambulances for years — both horse-drawn and motor— and in our ambulances are embodied the ideas of both hospital experts and mechanics. We have made hundreds of special ambulances and can meet any demands made upon us.

SEND FOR OUR COMPLETE CATALOGUE

RECH-MARBAKER COMPANY

Girard Avenue and Eighth Street, Philadelphia, Pa.

DIRECTORY OF HOSPITAL SUPPLIES

Continued on page 87.

DIRECTORY OF HOSPITAL SUPPLIES

Continued from page 85.

Continued on page 89.

DIRECTORY OF HOSPITAL SUPPLIES

Continued from page 87.

Continued on page 91.

DIRECTORY OF HOSPITAL SUPPLIES

Continued from page 89.

Indicated where a light stimulant and tonic is needed

COOK'S *Imperial*

Extra Dry

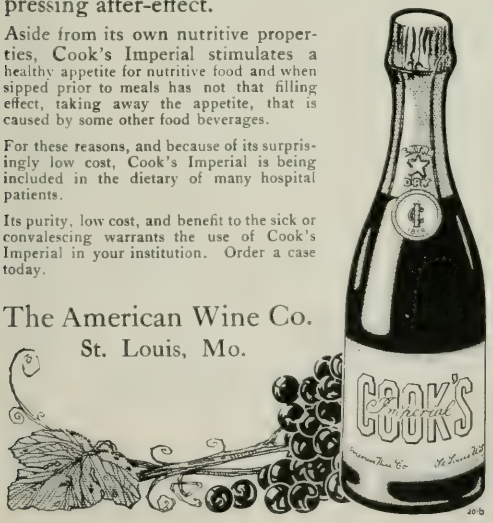
Champagne

is just stimulating enough to keep up the spirit of hopefulness in the patient, without any depressing after-effect.

Aside from its own nutritive properties, Cook's Imperial stimulates a healthy appetite for nutritive food and when sipped prior to meals has not that filling effect, taking away the appetite, that is caused by some other food beverages.

For these reasons, and because of its surprisingly low cost, Cook's Imperial is being included in the dietary of many hospital patients.

Its purity, low cost, and benefit to the sick or convalescing warrants the use of Cook's Imperial in your institution. Order a case today.



The American Wine Co.
St. Louis, Mo.

THIS is the China Tea Pot that heat cannot craze—no hair-line cracks to harbor past flavors or impurities. It is acid-proof; non-absorbent; leadless glaze. Makes the most delicious tea you ever tasted.

HALL'S

Secret Process FIRE-PROOF CHINA

The Ware That is Sanitary, Economical, and Beautiful

Pots for Tea, Coffee, or Chocolate. Ramekins—Custards—Casseroles—Stew Pots—Egg Dishes, etc.

On every piece of Hall's China body and glaze are produced at one firing at a temperature of 2,400 degrees—the only chinaware so produced.

Outside a rich, beautiful Brown or Green, as desired; inside pure white.

For better food, better serving, and real economy, cook and serve in the same dish—Hall's China.

Free illustrated catalog describes the many dishes made by the Hall Process. Write to

HALL CHINA CO. East Liverpool, Ohio

One of Several Styles—Hall Casseroles

BED GOWNS

FOR MEN AND WOMEN PATIENTS—ON APPROVAL AT OUR EXPENSE

No. 28. Patients' Pepperell Jeans Sheeting Bed Gowns. *Double yoke front.* Wide hems and *tapes* in back and open all the way down. 36 inches long. Long sleeves. Price, on approval, PREPAID, per dozen,

$8.50

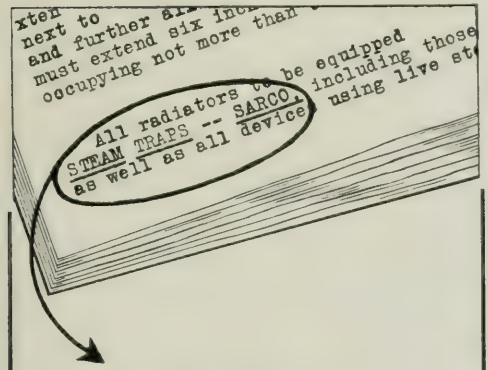
No. 28X. Patients' very best quality INDIAN HEAD Bed Gowns. *Double yoke front.* Wide hems and *tapes* in back and open all the way down. 36 inches long. Long sleeves. Absolutely and positively the BEST GOWN TO BE HAD AT ANY PRICE. No other manufacturer, to our knowledge, uses as fine a quality of material as is used in this gown, a material purposely selected because of its inherent and potential power to withstand and resist chemical action, laundry powders, blood stains, wear and tear. This garment will absolutely and positively outwear and outlast any other gown. Price, on approval, PREPAID, per dozen,

$9.50

FREE TRIAL OFFER

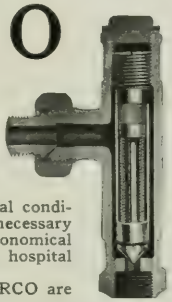
You take NO RISK, you take NO CHANCE. We send these garments, TRANSPORTATION CHARGES PREPAID, and if on arrival you are not HIGHLY PLEASED with them, you just fire them back to us *at our expense.*

THE HOSPITAL NURSES' UNIFORM MFG. CO., 410-12-14 Elm Street, Cincinnati, Ohio



In the specifications:
a small thing to look for, but a BIG thing to find.

RADIATOR TRAPS
SARCO



render your heating system absolutely noiseless in operation and less expensive to run because of the saving in steam and consequently saving in fuel.

Those familiar with hospital conditions will appreciate how necessary both the quiet and the economical features are to a suitable hospital heating system.

RADIATOR TRAPS—SARCO are different from any other type upon the market. They are cheaper and easier to install. They are by far the most efficient and satisfactory trap made.

A special type of RADIATOR TRAP—SARCO may also be used on the hospital sterilizers for high pressure.

Remember the name, "RADIATOR TRAPS—SARCO" when looking over the specifications for that new hospital or the specifications for the new heating system in that old one.

SARCO COMPANY, Inc.
MANUFACTURERS

Sarco Radiator Traps, Steam Traps, Water and Atmosphere Temperature Regulators

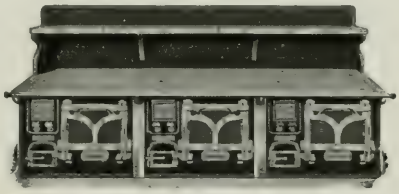
Woolworth Building, NEW YORK CITY
and at Monadnock Block, CHICAGO
New Telegraph Bldg., DETROIT
Drexel Bldg., PHILADELPHIA
Ellicott Square, BUFFALO

Hotel La Salle offers you every advantage in location, surroundings, cuisine and price.

Its one thousand employees give you service which is careful and personal, but unobtrusive.

Hotel La Salle
LA SALLE AT MADISON STREET

QUALITY KITCHENS
COMPLETE FOR HOSPITALS



BURTON 12-FOOT FRENCH RANGE

"Burton" Equipment is built for heavy hospital duty.

"Burton" Kitchen Design means economy and efficiency.

Let "Burton" design and equip your kitchen for you.

Plans and estimates free of charge.

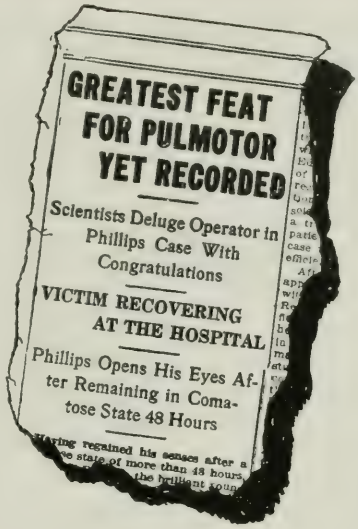
THE BURTON RANGE CO.
317 Walnut Street CINCINNATI, O.

Behind the Exaggeration, Lies the Story of the Value and the Need of Pulmotors

Hardly a day passes but somewhere a report appears recording the successful use of the Pulmotor. It may glisten with inaccuracies, and sensationalism that should not have been permitted. But however much we may condemn the report, it does not alter the fact that the Pulmotor has saved another life, and that an apparatus capable of doing that is worthy of investigation.

Pulmotors have received recognition both here and abroad as being far more dependable and effective than any other means, either manual or mechanical, in the treatment of respiratory failure resulting from collapse under anaesthetics, in drowning accidents, electric shock, asphyxiation by pressure, or noxious fumes and gases, alcoholic and drug poisoning and in obstetrical emergencies to induce respiration in stillborn infants.

Hithertofore the full measure of Pulmotor service was reserved to larger hospitals, public service corporations, large industrial units, and public safety departments. But with the introduction of the Type "B" Pulmotor the physician, the hospital of moderate means, the sanatorium and the smaller emergency station can have a Pulmotor of their own instantly available.


GREATEST FEAT FOR PULMOTOR YET RECORDED

Scientists Deluge Operator in Phillips Case With Congratulations

VICTIM RECOVERING AT THE HOSPITAL

Phillips Opens His Eyes After Remaining in Comatose State 48 Hours

Type "B" Pulmotor is not a make-shift adaptation cheaply put together, but is the result of years of study on the part of scientists who are recognized authorities in the physiology of respiration. It conforms to every physiological principle. Yet it is so light and compact that in its case it is only slightly larger than the ordinary physician's handbag. And its low cost and freedom from upkeep and operating expense places it well within the means of all.

No hospital, however small, is really complete without a Pulmotor. The safety of your patients, and reputation of your institution make it worth your while to investigate. Write now for full particulars.

All Draeger Apparatus is made in Pittsburgh under U. S. Patents.

The DRAEGER
OXYGEN APPARATUS CO.
415 First Avenue Pittsburgh, Pa.

AGENTS for The Wolf Safety Lamp Co. of America
MEMBERS of the National Safety Council

Type "B"
Pulmotor
The genuine always bears the name DRAEGER

MEMPHIS CITY HOSPITAL

"The whitest, cleanest job of enamel I ever saw."

Superintendent's Report.

The above is an extract from an unsolicited report.

Kyanize White Enamel was used exclusively for the operating room of this modern hospital—where cleanliness and sanitation is all important.

As in many other hospitals, all the beds in this hospital were also finished in Kyanize White Enamel following the Superintendent's enthusiastic report.

Kyanize KY-AN-IZE WHITE ENAMEL

It is the whitest, most durable Enamel made, and its smooth, porcelain-like, marble hard surface can be washed with soap in warm or cold water.

And because it covers more surface and lasts longer than any other white enamel, Kyanize is most economical.

Use it on all white work on wood, metal, or plaster, inside or outside; it will not crack, chip, blister, or peel in any weather or climate.

KYANIZE FLOOR FINISH has the same high reputation as all other Kyanize products; it withstands hard usage, and can be used with equally successful results on furniture and interior woodwork. Made in clear and eight permanent colors. Write us for further information.

Any painter or decorator will gladly give you an estimate on Kyanize, or we will send you details, specifications, or information if you will write us direct

Boston Varnish Company

Makers of Fine Varnishes and Enamels

Everett Station, Boston, U. S. A.

Chicago Warehouse and Office
519 W. TWELFTH ST.

San Francisco Warehouse and Office
311 CALIFORNIA ST.

Like the spring of turf beneath the feet

You know the feeling of a turf court under the feet when you walk on it with tennis shoes! It gives you the sensation of being as spry and active as when you were eighteen.

Well, that is the feeling that you carry with you all day long when you wear

CAT'S PAW
CUSHION RUBBER HEELS

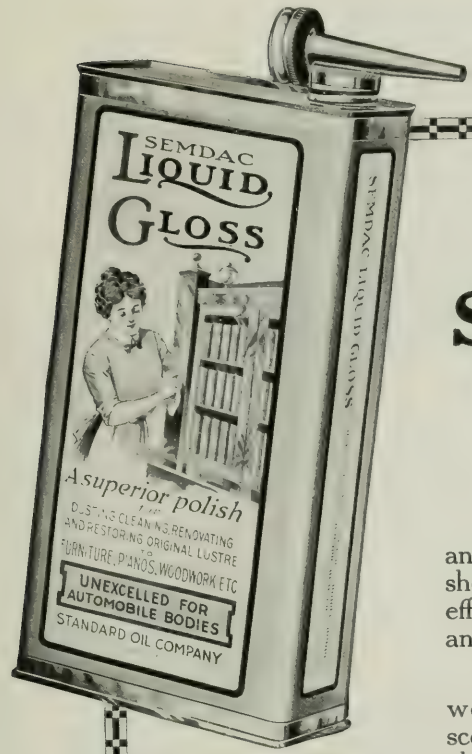
The constant walking entailed upon nurses and physicians is undoubtedly the prime cause of their fatigue at the end of the day. Cat's Paw Cushion Rubber Heels reduce fatigue from this cause about half. They are wonderful conservers of force. Silent, swift, resilient, they act like a tonic on the wearer.

Safety to the wearer—whether nurse, physician, or a patient just beginning to walk again—demands Cat's Paw Heels for the Foster Friction Plug (patented) prevents slipping.

The comfort of patients demands Cat's Paw Heels to hush the sound of footsteps in corridor and ward.

Cat's Paw Heels wear long; they keep their resiliency; they are uniform in quality; and they are sold everywhere. Black, tan, or white.

FOSTER RUBBER COMPANY
114 Federal Street BOSTON, MASS.
Originators and Patentees of the Foster Friction Plug, Which Prevents Slipping



Use

Semdac Liquid Gloss

and your institution will show the results of your efforts to achieve cleanliness and sanitation.

No matter how clean a wood surface may be scoured with the ordinary cleaner, if polish is not used afterwards the surface does not look clean.

SEMDAC cleans thoroughly and polishes with a high gloss, all in one operation.

It makes furniture and hard wood floors shining, bright and clean.

It makes them look like new.

SEMDAC collects the dust without scattering it.

Write us today for booklet giving the experiences of institutions who have used SEMDAC

Made and Guaranteed by

Standard Oil Company

(Indiana)

72 W. Adams St. **Chicago, Ill.** 48

Concerning Medicinal Malt Preparations

THE manufacture of malt preparations for medicinal use is a highly specialized professional work, and is successfully accomplished only under the direction of competent chemists. While in some respects similar to the brewing of beer, there are vital differences both in the materials which enter into these products and the processes of manufacture.

ANHEUSER-BUSCH'S
Malt-Nutrine
TRADE MARK.

the food-tonic

is the recognized standard of medicinal malt preparations of its class. The materials used in its manufacture are specially selected and safeguarded. Only the choicest Barley-malt and Saazer hops are used, and the finished product contains all of the soluble substances of these two materials.

Malt Nutrine is a perfect malt preparation, and should not be confused with cheap dark beers, many of which are represented to be medicinal malt products.

For the hospital patient, physician, or nurse who is in need of a refreshing, appetizing, nourishing and mildly stimulating liquid food, ***Malt Nutrine*** is most serviceable. It is low in alcohol strength (less than 2%), but high in food value (14% of the solids extracted from malt and hops).

Pronounced by the U. S. Internal Revenue Department a PURE MALT PRODUCT, and not an Alcoholic Beverage

Sold by all druggists

ANHEUSER-BUSCH SAINT LOUIS

Visitors to St. Louis are cordially invited to inspect our plant

THIS IS YOUR HAND-

You are pointing directly at-

Vitralite

THE LONG-LIFE **WHITE ENAMEL**

EVERY TIME YOU SAY: "We want a *durable* finish on those walls" —

Whenever you say: "We ought to be able to *scrub* those walls, and keep them really clean" —

When you remark: "What we want is a finish that will *stay white*" —

You are pointing at Vitralite — the Enamel that will do all those things — and more.

PRATT & LAMBERT - INC.

VARNISH MAKERS 68 YEARS

126 TONAWANDA STREET, BUFFALO, N. Y.

FACTORIES

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A Complete Food Beverage for the Patient in the Hospital

OVALTINE is a concentrated extraction, in soluble granules, of MALT, MILK, and EGGS, flavored with COCOA. It is made in Berne, Switzerland, by a special process which preserves the vitalizing elements of the four natural foods of its composition.

It is highly nourishing, and is completely absorbed and easily digested by the most weakened system. It is ideal for the sick or convalescent, and likewise for the expectant or nursing mother.

Nurses and dietitians will welcome OVALTINE as a food for hospital purposes for the ease with which it is prepared, the powder quickly dissolving in the warm milk or water with which it is mixed.

A FREE TRIAL TIN

will be sent to any hospital superintendent, dietitian, or head nurse desiring it. Supplies being limited, we ask that such requests be made as soon as possible. Write

Depot: The Wander Co., 23 N. Franklin St., Chicago

Dr. A. Wander, Ltd., Berne, Switzerland

RUBBERSET

TRADE MARK

EVERLASTING NAIL BRUSH

for the daily use of the professionally cleanly

For "surgical cleanliness" to be attained through the use of a nail brush, the brush must of itself be clean—free not merely from the soil incidental to its customary use, but purged absolutely of every possibility of being the lurking place of disease-carrying germs.

Especially is this true of brushes used in hospitals, clinics, sanitariums, operating rooms, and the offices of members of the medical and allied professions, and it is particularly for such service that the RUBBERSET Everlasting Nail Brush has been perfected.

Utterly unlike the common brush, whose bristles are held *temporarily* by being looped over silk, fiber, or wire, and which quickly deteriorates when subjected to even the most ordinary processes of sterilization, the RUBBERSET absolutely fulfills the most exacting demands which can be made on it, because to every accepted quality of excellence in brush construction has been *added* that most distinctive RUBBERSET feature of gripping every bristle *everlastingly* in hard rubber, a substance impervious alike to heat or cold, to use or old age, to soiling, to boiling, or to sterilizing in either vapor or liquid baths.

It is the most efficient tool of its kind yet devised, and as such is indorsed and adopted by leading institutions throughout the land.

Sample brush free to members of the allied professions if request is made on business stationery, or if reference is made to the institution with which the writer is identified

RUBBERSET COMPANY R. & C. H. T. CO., Props. **NEWARK, NEW JERSEY**

"Makers of a standard brush for every use to which a BRISTLE brush is put."